

Laceys.tv

QUALITY ELECTRONICS FOR THE RECEPTION OF TELEVISION

CATALOGUE 106

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Sydney	(02) 9755 5026
Brisbane	(07) 3290 2410
Coffs Harbour	(02) 6651 6100
Ulverstone	(03) 6425 6235

www.laceys.tv
sales@laceys.tv

ANTENNAS & MOUNTING HARDWARE

- Log Periodic
- Combination
- Very High Frequency
- High Performance Yagis
- Misc. Yagis
- Phased Array
- Radio Services
- Antenna Hardware & Accessories
- Caravan Kits & Accessories

1

AMPLIFIERS & MODULATORS

- Amplifiers
- Masthead Amplifiers
- Distribution Amplifiers
- Power Injectors
- Power Supplies for Amplifiers
- Modulators, Mono Audio

2

AV LEADS, CABLE, CONNECTORS & HAND TOOLS

- HDMI Accessories
- A/V Accessories & Switches
- Cable & Leads
- Adapters & Connectors
- Cable Installation
- Hand Tools
- Outlet Plates & Mounting Hardware
- Baluns
- Multi-purpose Work Clothes

3

DIPLEXERS, FILTERS & PASSIVES

- Splitters / Power Dividers
- Taps and Couplers
- Diplexers & Multiplexers
- Attenuators
- Filters & Isolators

4

INSTRUMENTS

- Test Instruments
- Budget Instruments & Accessories
- Noise Generators
- Instruments Batteries & Chargers
- Technical Information

5

MOUNTING BRACKETS & CABINETS

- LED/LCD/Plasma Brackets
- Misc. Brackets: TV, Flat Panel and Speaker
- Cabinets

6

COMMERCIAL MATV, SMATV & CCTV

- Fracarro K Series
- Digital To Analogue Conversion
- Digital Modulation, Headends
- IPTV Server Solutions
- Multiswitches, Taps, Splitters & Amplifiers
- Modulator Rack
- Fibre Optic Solutions
- CATV Products

7

SATELLITE EQUIPMENT

- Satellite Television Dishes
- LNBFs
- Multifeed LNB Holder
- Satellite Hardware
- Satellite Accessories & Receivers

8

RECEIVERS

- Terrestrial Television Receivers
- Satellite & VAST Television Receivers
- Cable/QAM Television Receivers
- Portable High Definition LCD Television/ Monitor

9

Introduction

Laceys.tv Cat.106 marks our 27th year in business. Thanks to the support of professional installers we have grown into one of Australia's largest reception solution suppliers, contributing to the delivery of stable Digital TV signals in many places.

Analogue switchover is in progress and within months most television broadcasts in Australia will be Digital. Robust high picture quality and wide screen Digital TV is now available to everyone, with receiver prices in real terms that are similar to the cost of an analogue TV ten years ago. Quality antennas and signal distribution products remain important to ensure that a receiver has as much threshold above drop out or the cliff edge as possible, so that it will work reliably for the longer term.

Shortly after the last analogue transmitters have been switched off, an important wave of channel re-organization will affect our industry. This is a result of the Government's Digital Dividend, where the channels from 52 to 69 have been sold for Long Term Evolution or 4G communication use for devices like smart phones. The new digital channels will be organized into one of 5 new groups of adjacent channels, nationally. Details of the plans can be downloaded from http://www.acma.gov.au/WEB/STANDARD/pc=PC_312417 Documents at the bottom of the list are the latest.

The television engineering community is concerned at the potential for interference from such mobile computing devices as they are wideband and relatively high power transmitters, that will operate close to the remaining TV frequencies in some places.

This is likely to create need for more selective or narrow bandwidth antennas, an area where Laceys.tv has broad experience with our friends Fracarro. In this catalogue antennas for these new channel groups have been labelled and colour coded to assist their identification.

Laceys.tv is working with our suppliers to deliver solutions to LTE interference and hope to have more news of solutions to the challenging filter requirement as the day gets closer.



Peter Lacey,
Managing Director.

TERMS OF TRADE

PAYMENT:

Laceys.tv accept Cash, Cheque, Visa/Mastercard. Strictly 30 day credit account terms are available to approved customers who maintain their accounts within terms.

OWNERSHIP:

Goods remain the property of Peter C. Lacey Services Pty. Ltd. trading as Laceys.tv until paid for in full.

MINIMUMS:

No minimum order policy applies.

FREIGHT:

Laceys.tv ship countrywide daily with a number of quality delivery services. Express Post is also available.

INSURANCE:

Is the responsibility of the receiver.

DISPUTES OR CLAIMS:

Must be notified within 7 days.

RETURNS:

Are only accepted with a Return Authorisation Number, a copy of our Invoice, within 14 days of invoice date and may be subject to a 20% handling charge.

TECHNICAL INFORMATION is offered without liability.

PRICING may be subject to change without notice.

BEWARE OF SPECIFICATIONS:

Our gain figures can look tame when compared to those quoted by competitors. As radio frequency performance figures can be made under questionable circumstances or even exaggerated, we strongly recommend customers make their own measurements.

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Allen Briant
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Ulverstone, 7315
Tasmania
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Website: www.laceys.tv

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Peter C. Lacey Services Pty. Ltd. trading as Laceys.tv ABN 59769658785

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Errors and Omissions Excepted.

Produced in Australia.

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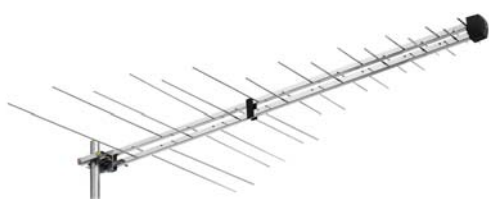
Antennas & Mounting Hardware

LOG PERIODIC

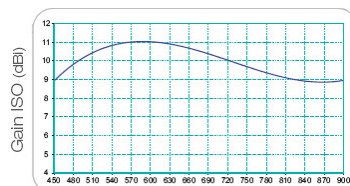
Fracarro use a balance of precision design and quality materials to produce a superior antenna, the only one that carries the distinctive FR trademark and the first true Log Periodic antenna for television. Now also available with F connector and a unique weatherproof boot, features include no loss cable connections, nose cones that keep weather out permanently, secure dual vee block mount that fits masting from 26mmØ to 60mmØ, black plastic components for long UV life and concealed cable inside the boom of the antenna. Suits horizontal or vertical polarized signals. All Fracarro Log Periodic Antennas are naturally 75Ω and ship in carton quantities of 20 pieces.

DIRECT CABLE CONNECTION LOG PERIODICS

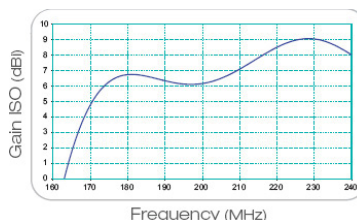
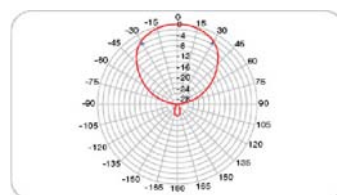
FRACARRO LP345HV



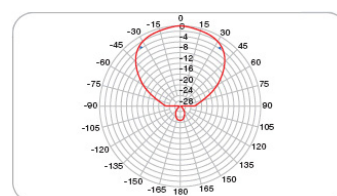
Channels: VHF: 6–12 b3, UHF: 28–69 b4&5
Gain: VHF: 9dB, UHF: 11dB
F/B Ratio: VHF: 24dB, UHF: 32dB
Boom length: 111cm



UHF



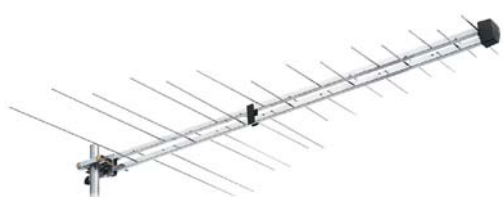
VHF



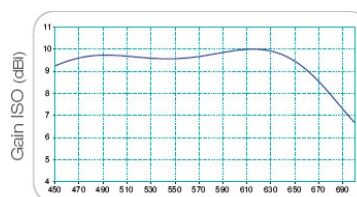
Tech Tip:

How do the Fracarro logs work with FM? OK! Whilst nothing works as well as a dedicated band 2 FM antenna, an antenna like the LP34 does an acceptable job of FM for most people. A proper DAB+ antenna will be vertically polarized, but again Fracarro's logs can do the job.

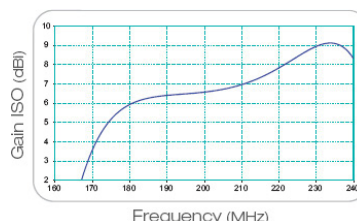
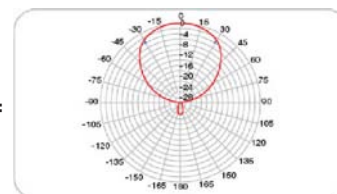
FRACARRO LP34HV



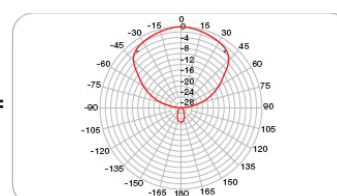
Channels: VHF: 6–12 b3, UHF: 28–40 b4&5
Gain: VHF: 9dB, UHF: 10dB
F/B Ratio: VHF: 21dB, UHF: 25dB
Boom length: 111cm



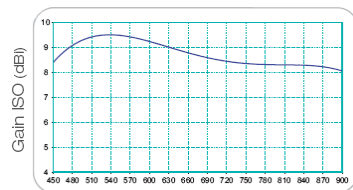
UHF



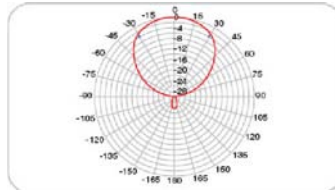
VHF



Antennas & Mounting Hardware



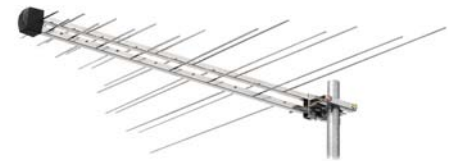
UHF



mini

FRACARRO

LP345MHV



Channels: VHF: 6–69 b3, UHF: 28–69 b4&5

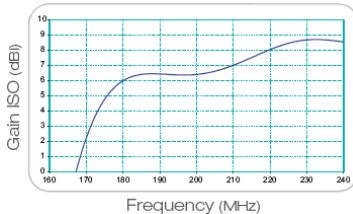
Gain: VHF: 8.5dB, UHF: 9.5dB

F/B Ratio: VHF: 22dB, UHF: 30dB

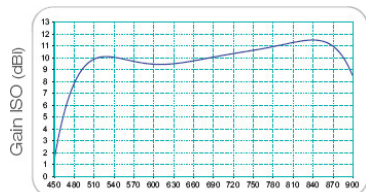
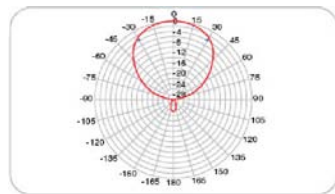
Boom length: 72cm

Tech Tip:

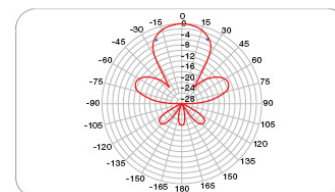
Ideal antenna for caravans & mobile homes.



VHF



UHF



FRACARRO

LPV345HV

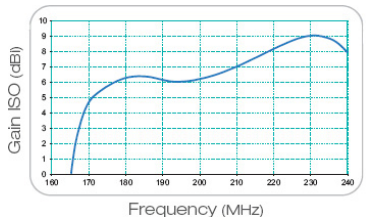


Channels: VHF: 6–12 b3, UHF: 28–69 b4&5

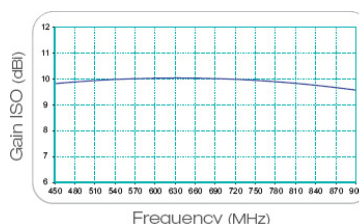
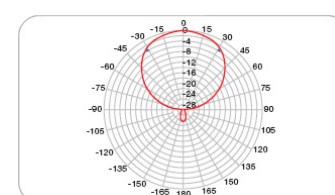
Gain: VHF: 9dB, UHF: 11.5dB

F/B Ratio: VHF: 24dB, UHF: 32dB

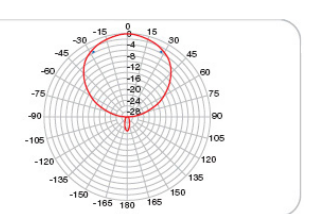
Boom length: 71cm



VHF

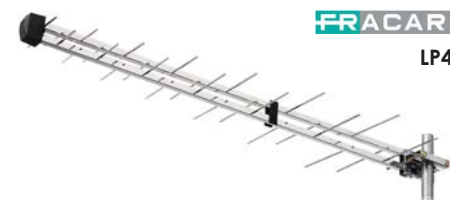


UHF



FRACARRO

LP45HV

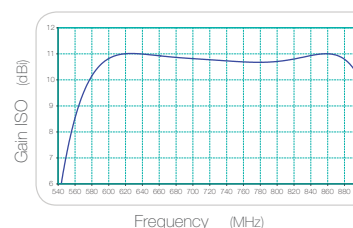


Channels: 28–69 b4&5

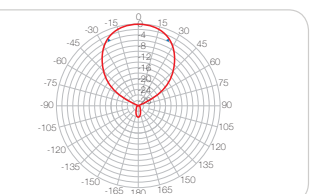
Gain: 10dB

F/B Ratio: 36dB

Boom length: 94cm



UHF



FRACARRO

LP5HV



Channels: 40–69 b5

Gain: 11dB

F/B Ratio: 36dB

Boom length: 94cm

Tech Tip:

Strong front to back ratio, flat frequency response across wide frequency ranges and better impedance match make FR Log Periodic antennas an excellent choice for Digital TV.

Antennas & Mounting Hardware

F CONNECTOR TERMINATED LOG PERIODICS

FRACARRO

LP345F

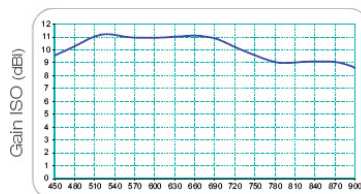


Channels: VHF: 6–12 b3, UHF: 28–69 b4&5

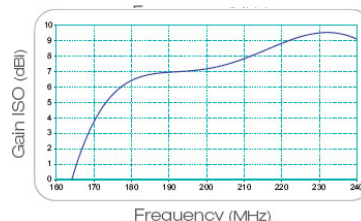
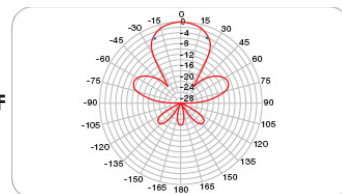
Gain: VHF: 9.5dB, UHF: 11dB

F/B Ratio: VHF: 24dB, UHF: 32dB

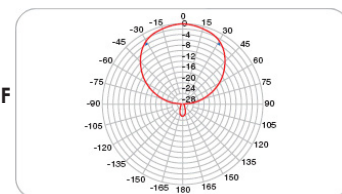
Boom length: 115cm



UHF

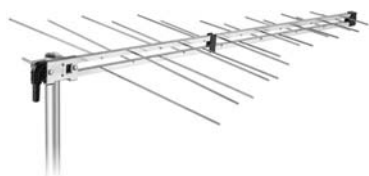


VHF



FRACARRO

LP34F

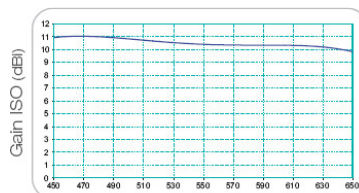


Channels: VHF: 6–12 b3, UHF: 28–40 b4&5

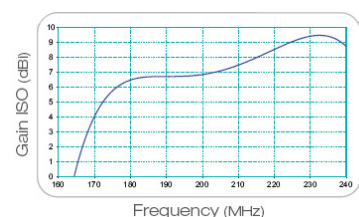
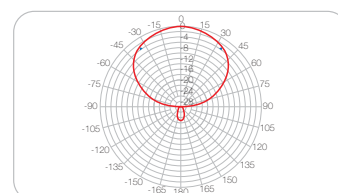
Gain: VHF: 9.5dB, UHF: 11dB

F/B Ratio: VHF: 21dB, UHF: 25dB

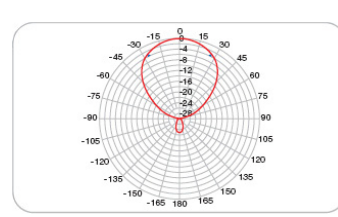
Boom length: 115cm



UHF



VHF



FRACARRO

LP345MF

mini F

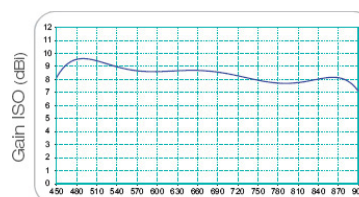


Channels: VHF: 6–12 b3, UHF: 28–69 b4&5

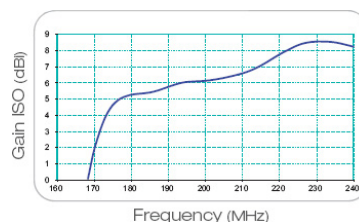
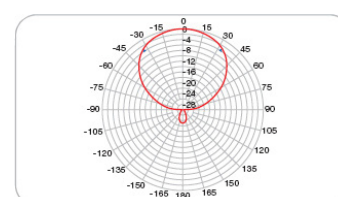
Gain: VHF: 8.5dB, UHF: 9.5dB

F/B Ratio: VHF: 22dB, UHF: 30dB

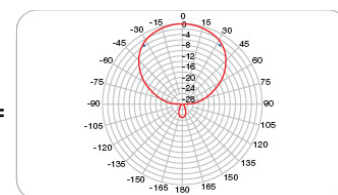
Boom length: 77cm



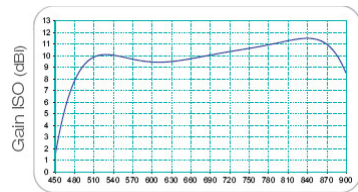
UHF



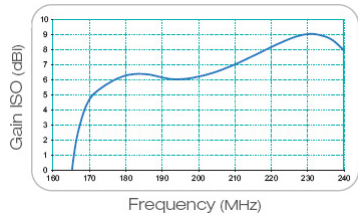
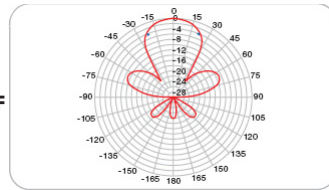
VHF



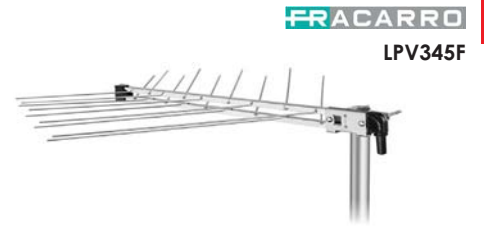
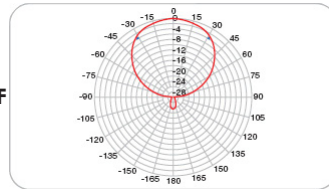
Antennas & Mounting Hardware



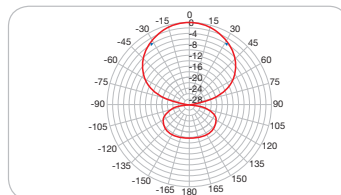
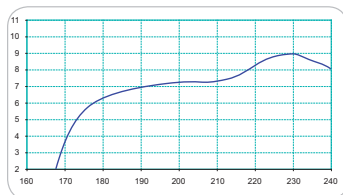
UHF



VHF



Channels:	VHF: 6–12 b3, UHF: 28–69 b4&5
Gain:	VHF: 9dB, UHF: 11.5dB
F/B Ratio:	VHF: 24dB, UHF: 32dB
Boom length:	75cm

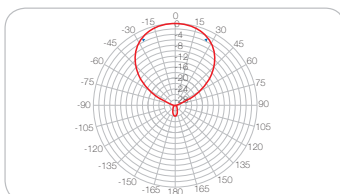
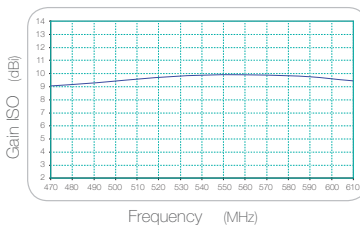


FRACARRO

LP3F



Channels:	VHF: 6–12 b3	block A
Gain:	9dB	
F/B Ratio:	25dB	
Boom Length:	65cm	



FRACARRO

LP4F

Channels:	28–39 b4
Gain:	10dB
F/B Ratio:	32dB
Boom Length:	65cm

Antennas & Mounting Hardware

FRACARRO

LP45F

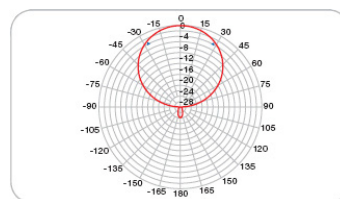
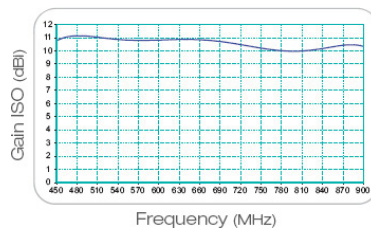


Channels: 28–69 b4&5

Gain: 11dB

F/B Ratio: 36dB

Boom length: 99cm



FRACARRO

LP45NF

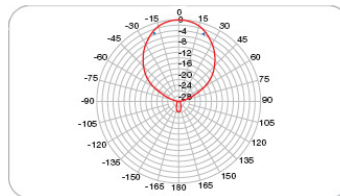
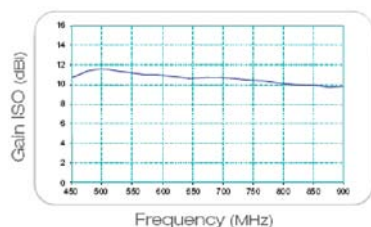


Channels: 28–69 b4&5

Gain: 11.5dB

F/B Ratio: 36dB

Boom length: 115cm



FRACARRO

LP5F

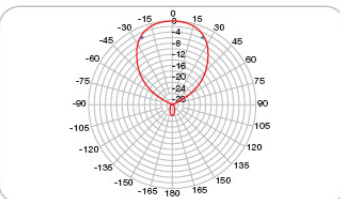
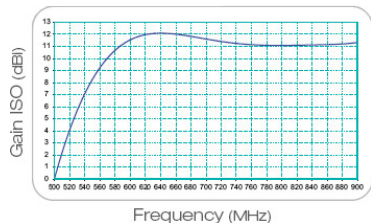


Channels: 40–69 b4&5

Gain: 12dB

F/B Ratio: 36dB

Boom length: 99cm



Antennas & Mounting Hardware

COMBINATION

CROSS POLARITY



CDX13



Channels:	VHF: 6–12, UHF: 28–69 bands 3, 4 and 5
Connection:	75Ω F connector balun included
Boom length:	110cm
Carton Quantity:	10

Combination cross polarized for both horizontal and vertical signals.

MULTIBAND



AI18HD



Channels:	VHF: 2–12, UHF: 28–37, bands 1, 2, 3&4
Connection:	75Ω F connector balun included
Boom length:	152cm
Carton Quantity:	10



UV13/2850



Channels:	VHF: 6–11, UHF: 28–50, bands 3 and 4 plus
Connection:	75Ω F type connection
Boom length:	140cm
Carton Quantity:	1



AI23HD



Channels:	VHF: 2–12, UHF: 28–37, bands 1, 2, 3&4
Connection:	75Ω F connector balun included
Boom length:	203cm
Carton Quantity:	10



UV19WB



Channels:	VHF: 6–12, UHF: 28–69, bands 3, 4 and 5
Connection:	75Ω F type connection
Boom length:	185cm
Carton Quantity:	1



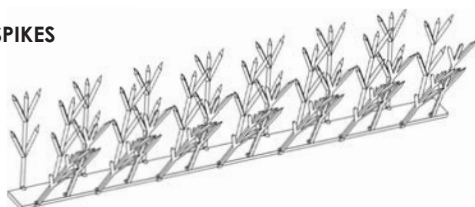
AI30HD



Channels:	VHF: 2–12, UHF: 28–37, bands 1, 2, 3&4
Connection:	75Ω F connector balun integrated
Boom length:	150cm
Carton Quantity:	5

BIRD SPIKES

BIRDSPIKES



Keep birds off your antennas!

Thorny Devil Bird Spikes are the simplest, easiest and most effective way to deter birds from roosting in undesirable areas. Can be glued, screwed, nailed, sawn and drilled.

420mm(L) x 110mm(W) x 90mm(H)

Australian designed. Made from UV Resistant Polycarbonate.

Antennas & Mounting Hardware

VERY HIGH FREQUENCY

MULTIBAND VHF



AI6HD



Channels:	VHF: 2–12
Connection:	75Ω F connector balun included
Boom length:	101cm
Carton Quantity:	10



DL4

DL3	VHF: 0–12, 75Ω F connector balun included, 4–10dB gain.
DL4	VHF: 0–12, 75Ω F connector balun included, 5–11dB gain.

VHF Phased Array



CA16 vertical

CA8	Channels 6–12, phased array. Larger capture area, picks up signal where yagis sometimes fail, 300Ω. 7–9.5dB gain. block A
CA16	Channels 6–12, phased array. Twice the CA8's capture area for twice the gain, 300Ω. 12.5–15dB gain. block A
CA16GL	Gain Lifter, improve CA8 +4.5dB or CA16 +6.3dB on channel 2.

SINGLE CHANNEL B1

FRACARRO

4 element

4E2	4 element Au ch 0, 6.5dB gain, >18dB f/b.
4E3	4 element Au ch 1, 6.5dB gain, >18dB f/b.

SINGLE CHANNEL B3

FRACARRO

4 element



4DF	4 element Au ch 6, 6.5dB gain, >18dB f/b.
-----	---

FRACARRO

6 element



6D	6 element Au ch 6, 9dB gain, 25dB f/b.
6E6	6 element Au ch 7, 9dB gain, 25dB f/b.
6E7	6 element Au ch 8, 9dB gain, 25dB f/b.
6E8	6 element Au ch 9, 9dB gain, 25dB f/b.
6H	6 element Au ch 10, 9dB gain, 25dB f/b.
6H1	6 element Au ch 11, 9dB gain, 25dB f/b.
6E12	6 element Au ch 12, 9dB gain, 25dB f/b.

FRACARRO

11 element



11D	11 element Au ch 6, 12dB gain, 35dB f/b.
11E6	11 element Au ch 7, 12dB gain, 35dB f/b.
11E7	11 element Au ch 8, 12dB gain, 35dB f/b.
11E8	11 element Au ch 9, 12dB gain, 35dB f/b.
11E9	11 element Au ch 9a, 12dB gain, 35dB f/b.
11H	11 element Au ch 10, 12dB gain, 35dB f/b.
11H1	11 element Au ch 11, 12dB gain, 35dB f/b.
11E12	11 element Au ch 12, 12dB gain, 35dB f/b.

Tech Tip:

Fracarro channel cut antennas provide substantial improvements in gain, front to back ratio and beamwidth, providing results with Digital or Analogue TV where other antennas fail.

Antennas & Mounting Hardware

ALL BAND3 VHF

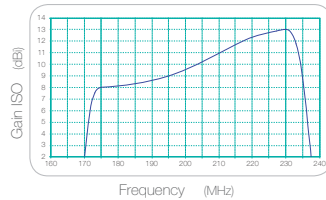
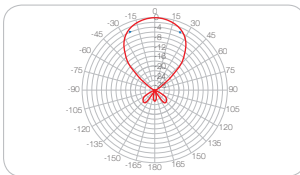
FRACARRO

BLV6F



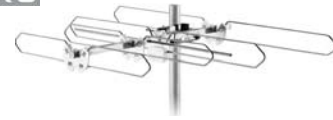
Channels:	VHF: 6–12, band 3	block A
Connection:	75Ω F Type	
Gain:	13dB	
F/B Ratio:	25dB	
Boom length:	149cm	

BLV4F and BLV6F models include frequency optimised baluns.

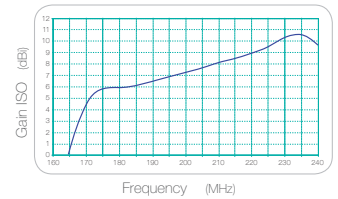
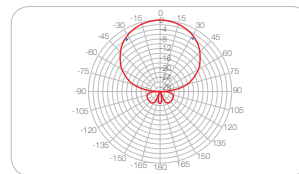


FRACARRO

BLV4F



Channels:	VHF: 6–12, band 3	block A
Connection:	75Ω F Type	
Gain:	11dB	
F/B Ratio:	20dB	
Boom length:	64cm	

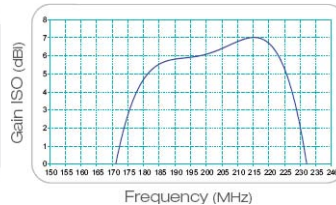
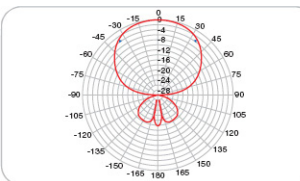


FRACARRO

4E512F



Channels:	VHF: 6–12, band 3	block A
Connection:	75Ω F Type	
Gain:	7dB	
F/B Ratio:	16dB	
Boom length:	108cm	

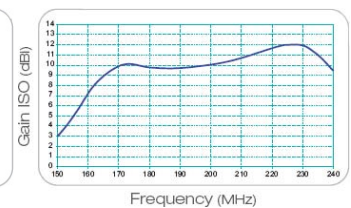
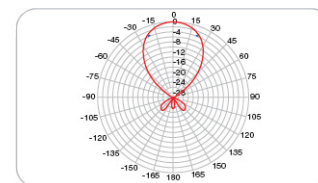


FRACARRO

ANT3100510



Channels:	VHF: 6–12, band 3	block A
Connection:	75Ω F Type	
Gain:	12dB	
F/B Ratio:	28dB	
Boom length:	237cm	

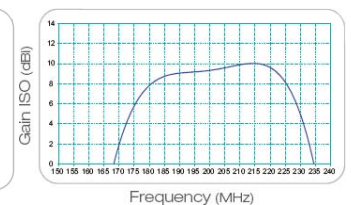
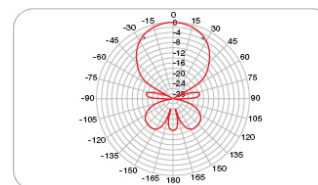


FRACARRO

6E512F



Channels:	VHF: 6–12, band 3	block A
Connection:	75Ω F Type	
Gain:	10dB	
F/B Ratio:	18dB	
Boom length:	181cm	



**An all band 3 antenna can be
a high performance deep fringe antenna
or a low cost television solution
— your choice!**

Antennas & Mounting Hardware

SIGMA SERIES UHF HIGH PERFORMANCE YAGIS

FRACARRO

SIGMA6



Channels: 21–69, bands 4 and 5

Gain: 17dBt

F/B Ratio: 32dB

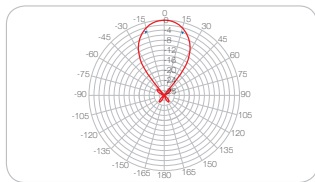
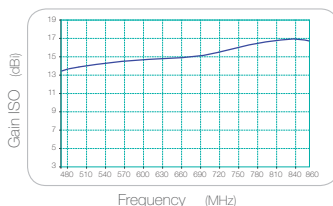
Boom length: 92cm

Connection: F Type

A new range of terrestrial antennas unique in performance and design, Fracarro Sigma is perfect for the reception of Digital Terrestrial television signals.

Patented loop elements and double size corner reflectors deliver high directivity with an almost total absence of side-lobes — excellent for reducing reception of reflections.

Sigma antennas feature pre-assembled elements, reflectors and mast clamp enabling tool free installation. F connector balun and a unique weatherproof boot are standard. Unique fibreglass reinforced polymer construction ensures physical strength and long life.



FRACARRO

SIGMA9



Channels: 21–69, bands 4 and 5

Gain: 18.5dB

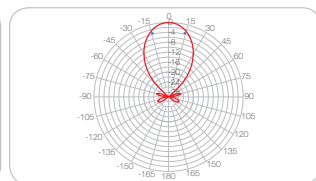
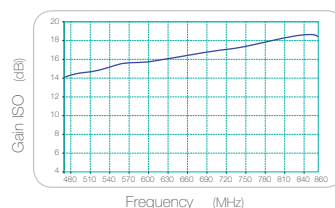
F/B Ratio: 32dB

Boom length: 130cm

Connection: F Type

The highest gain Sigma antenna yet! Up to 18.5dB gain that can be boosted even more with a Sigma PWR HD dipole.

Sigma antennas can be installed quickly and easily without hand tools.



Sigma Amplified Dipole

FRACARRO

SIGMAPWRHD



Channels: 21–69, bands 4 and 5

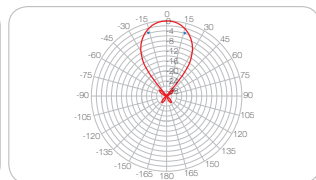
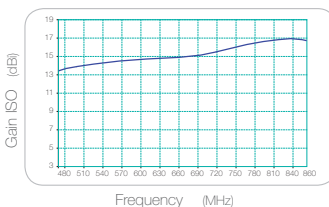
Gain: 17dB

F/B Ratio: 32dB

Boom length: 92cm

Connection: F Type

Active UHF Dipole. Perfect for weak signal areas, adds an extra 16dB of gain electronically with minimal noise. High signal level output can be helpful with signal distribution and reduces the possibility of interference. Protected against electrostatic discharges, an automatic passive switch ensures operation continues even when power is not connected. Impedance match is excellent and power consumption low. Requires PS12DC or any 12 to 24V DC line supply @26mA.

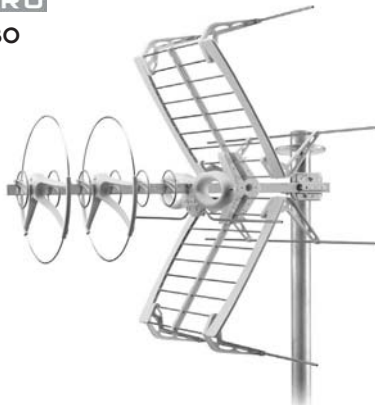


Antennas & Mounting Hardware

VHF + UHF HIGH PERFORMANCE YAGI

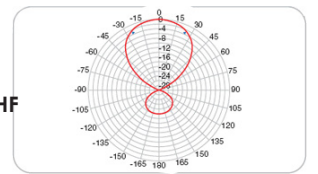
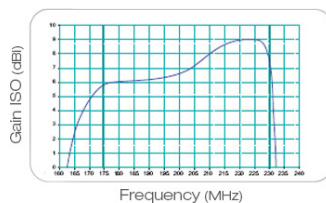
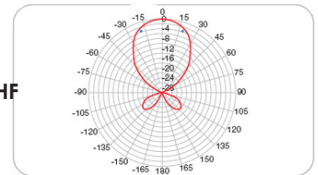
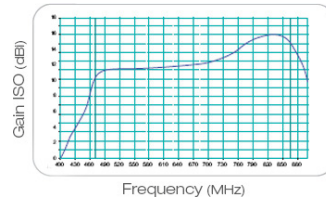
FRACARRO

SIGMACOMBO



The revolutionary loop technology applied to this antenna allows the reception of both VHF and UHF bands with the same performance as two separate antennas and the outstanding physical strength of Sigma.

Sigma antennas can be installed quickly and easily without hand tools.



Channels: 6–69, bands 3, 4 and 5

Gain: VHF: 9dB, UHF: 16dB

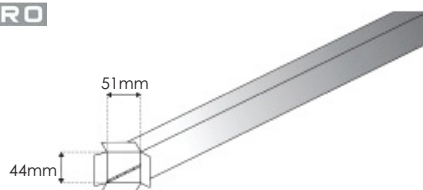
F/B Ratio: VHF: 20dB, UHF: 32dB

Boom length: 108cm

Connection: F Type

NARROW BAND UHF YAGI ANTENNAS

FRACARRO



These Fracarro yagi antennas ship in a compact Knock Down carton that save on van space, shipping costs and are straight forward to assemble.

Cartons are about the size of a fluorescent tube and contain one antenna.

10 ELEMENT NARROW BAND UHF YAGIS

NEW F Connector models

10 element Fracarro channel grouped antennas that focus on particular groups of channels for better gain!



**10F2734,
10F3546 &
10F4769**

FRACARRO

10F2734 Au ch. 28–35 15dB gain 25dB f/b ratio.

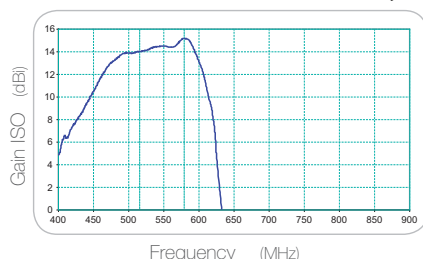
block B

10F3546 Au ch. 35–50 16dB gain 30dB f/b ratio.

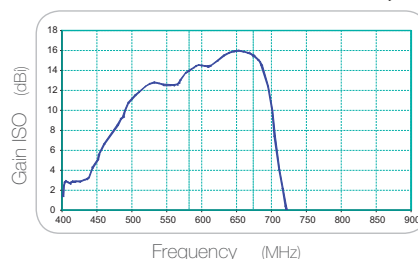
block C, block D, block E

10F4769 Au ch. 49–69 14.3dB gain 25dB f/b ratio.

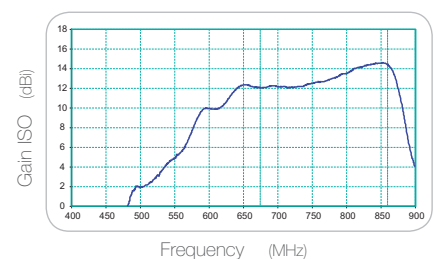
10F2734



10F3546

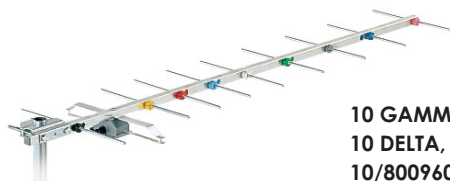


10F4769



Antennas & Mounting Hardware

FRACARRO

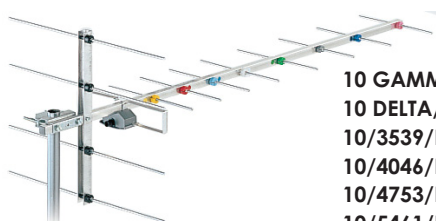


**10 GAMMA,
10 DELTA,
10/800960**

Narrow bandwidth Fracarro antennas that allow you to choose an antenna with gain where you need it.

FRACARRO

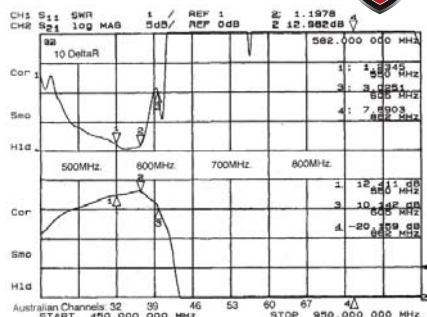
10 GAMMA/R	Au ch. 20–31 11dB gain 24dB f/b ratio.	
10 DELTA	Au ch. 24–36 11dB gain 20dB f/b ratio.	block B
10 DELTA/R	Au ch. 24–36 11dB gain 24dB f/b ratio.	block B
10/3539/R	Au ch. 28–42 11dB gain 24dB f/b ratio.	block B, block C
10/4046/R	Au ch. 34–49 11dB gain 24dB f/b ratio.	block C, block D
10/4753/R	Au ch. 40–57 11dB gain 24dB f/b ratio.	
10/5461/R	Au ch. 46–67 11dB gain 24dB f/b ratio.	
10/6269/R	Au ch. 55–75 11dB gain 24dB f/b ratio.	
10/860960	Special purpose 860–960MHz 8–10dB gain. Suitable for communication and GSM purposes.	



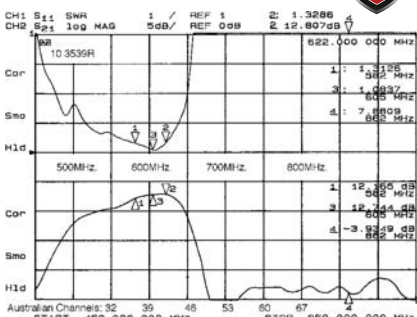
**10 GAMMA/R
10 DELTA/R,
10/3539/R
10/4046/R
10/4753/R
10/5461/R
10/6269/R**

Tech Tip:

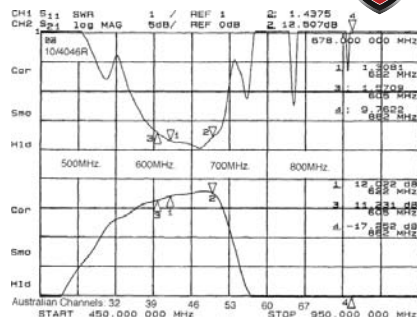
To assist selecting a better UHF antenna, we reproduce gain vs. frequency and return loss sweeps for narrow band Fracarro UHF antennas. Level shown in 5dB steps from a 0dB reference point 1 line up from the bottom. Gain is the lower trace.



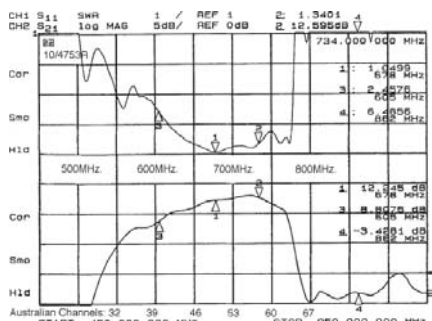
10 DELTA/R



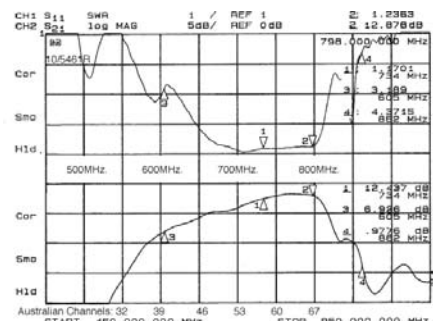
10/3539/R



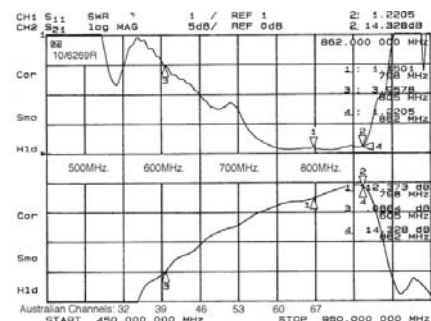
10/4046/R



10/4753/R



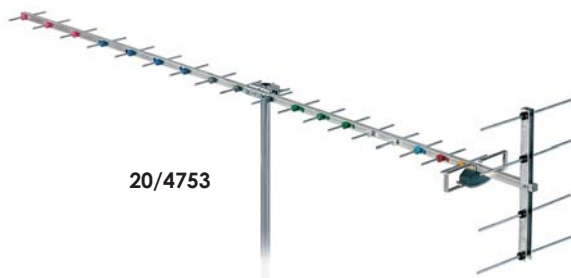
10/5461/R



10/6269/R

Antennas & Mounting Hardware

20 ELEMENT NARROW BAND UHF YAGIS



20/4753

Tech Tip:

Stacking two identical antennas doubles the signal power, providing an extra 3dB. Four antennas, an extra 6dB. Fracarro stacking couplers can be used to stack many different antennas. Stacking also halves beamwidth and sidelobes whilst improving front to back ratio. Space of about 1.5 wavelengths between each 20 element antenna is required.

FRACARRO

20 ALFA 14dB gain for UHF CB, nice 50Ω match.

20 DELTA Au ch. 24–36, 14dB gain, 26dB f/b ratio. **block B**

20/4046 Au ch. 34–49, 14dB gain, 26dB f/b ratio. **block C, block D**

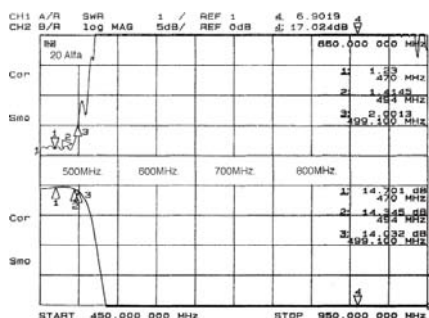
20/4753 Au ch. 40–57, 14dB gain, 26dB f/b ratio.

20/5461 Au ch. 45–67, 14dB gain, 26dB f/b ratio.

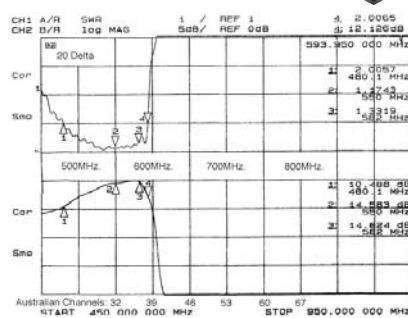
20/6269 Au ch. 55–69, 14dB gain, 26dB f/b ratio.

20 ALFA through to 20/6269 are 20 element narrow bandwidth antennas, with a genuine $\pm 12^\circ$ horizontal and $\pm 23^\circ$ vertical half power angles.

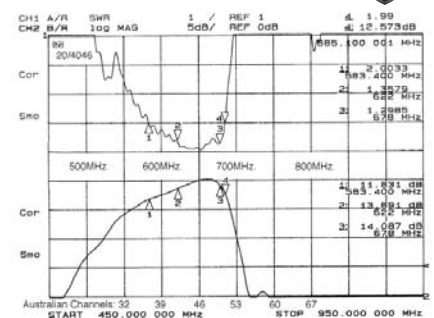
They drag in signal from afar like nothing else!



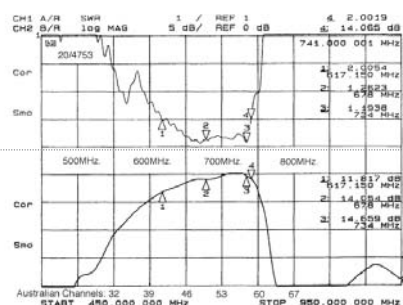
20 ALFA



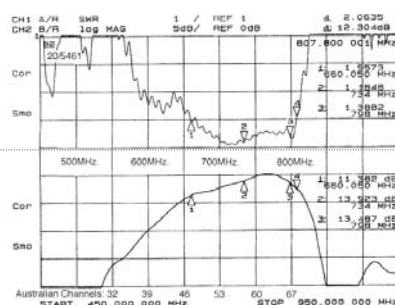
20 DELTA



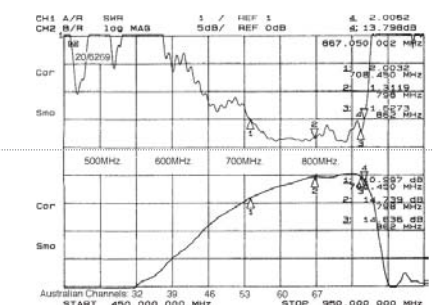
20/4046



20/4753



20/5461



20/6269

FRACARRO

CA1 boom support, recommended for 20 element BL series and narrow band Yagi antennas.

Included in all 20RD models at no extra cost.



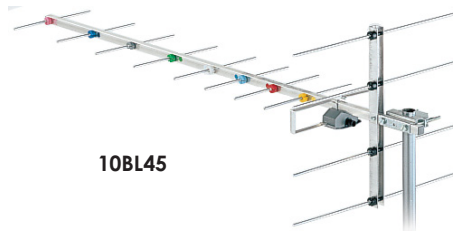
CA1 Boom support close up.

Tech Tip:

CA1 boom support, improves physical strength of FR 20 element antennas.

Antennas & Mounting Hardware

FULL BAND UHF YAGIS



10BL45

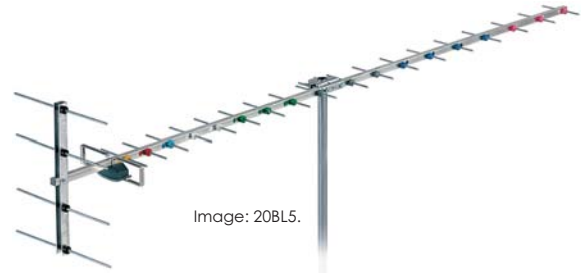


Image: 20BL5.

FRACARRO

10BL4F	10 el. b4 Au ch. 28–40, 14dB gain, 27dB f/b ratio.
10BL45F	10 el. b45 Au ch. 28–69, 12.5dB gain, 24dB f/b ratio.
10BL5F	10 el. b5 Au ch. 39–69, 13.5dB gain, 22dB f/b ratio.

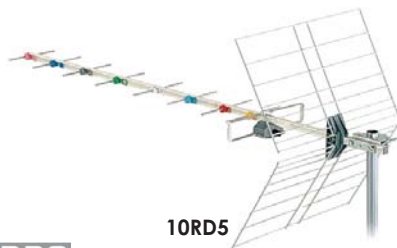
FRACARRO

20BL4F	20 el. b4 Au ch. 28–40, 16dB gain, 21dB f/b ratio.
20BL45F	20 el. b45 Au ch. 28–69, 14.5dB gain, 24dB f/b ratio.
20BL5F	20 el. b5 Au ch. 39–69, 15dB gain, 24dB f/b ratio.

CA1 Boom support recommended for 20BL4.

CORNER REFLECTOR UHF YAGIS

Corner reflectors improve anti-ghost performance & appearance of RD model antennas. F models include F type connector.



10RD5



20RD5F

FRACARRO

10RD4	10 el. ch.28–40 band 4, 14dB gain. 26dB f/b ratio.
10RD4F	10 el. ch.28–40 band 4, 14dB gain. 26dB f/b ratio.
10RD5F	10 el. ch.39–69 band 5, 13dB gain. 24dB f/b ratio.

FRACARRO

20RD4	20 el. ch.28–40 band 4, 15.5dB gain. 28dB f/b ratio.
20RD4F	20 el. ch.28–40 band 4, 15.5dB gain. 28dB f/b ratio.
20RD5	20 el. ch.39–69 band 5, 16dB gain, 25db f/b ratio.
20RD5F	20 el. ch.39–69 band 5, 16dB gain, 25db f/b ratio.

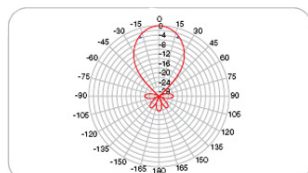
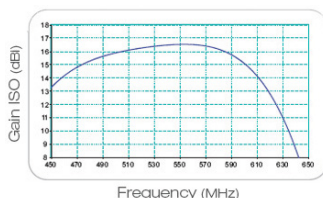
RD models incorporate corner reflectors that improve anti-ghost performance and appearance. 20RD antennas include a CA1 boom support. F models feature F type connector termination.

FRACARRO

ANT5143802



Channels:	28–40 band 4, Philips Portenseigne Lambda
Gain:	16.5dB
F/B Ratio:	30dB
Boom length:	238cm



CAI AERIAL BENCHMARKS



Aerial Benchmarking is a British program that specifies minimum performance standards for UHF Digital TV.

Conformance is determined by independent Test Houses and covers specifications like Gain, Impedance Match, Directivity and rejection of Feeder Pick-Up. The implications are particularly interesting for areas of Australia where UHF is intended for use for Digital TV.

Antennas that have been approved will display a "mark", confirming that the required standard has been reached. Although this benchmark is not a legal requirement, experience in the industry has indicated that it will be to the industry's advantage to supply equipment to this recommendation.

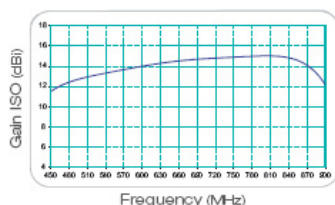
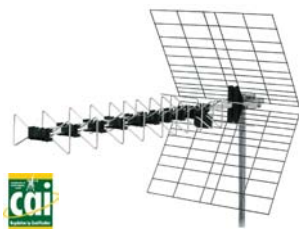
<http://www.cai.org.uk/asp/bmaerials.asp>

Antennas & Mounting Hardware

BLU SERIES PRE-ASSEMBLED UHF YAGIS

FRACARRO

BLU420F



Channels: 28–69, b 4&5

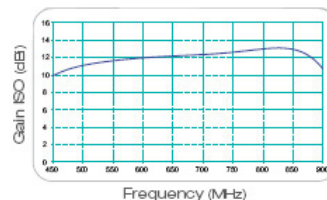
Gain: 15dB

F/B Ratio: 30dB

Boom length: 119cm

FRACARRO

BLU220F PLUS



Channels: 28–69, b 4 & 5

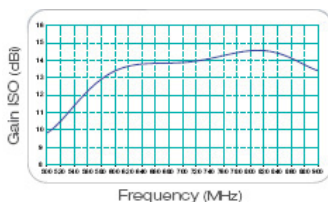
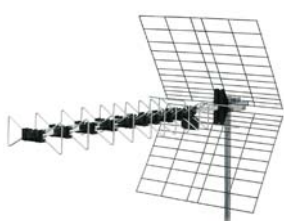
Gain: 13dB

F/B Ratio: 30dB

Boom length: 84cm

FRACARRO

BLU425F



Channels: 40–69, b 5

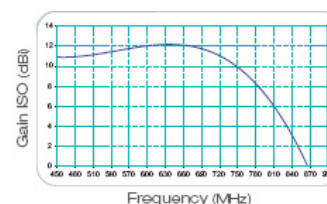
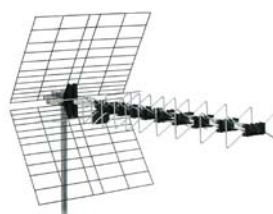
Gain: 15dB

F/B Ratio: 26dB

Boom length: 119cm

FRACARRO

BLU424F



Channels: 28–40, b 4

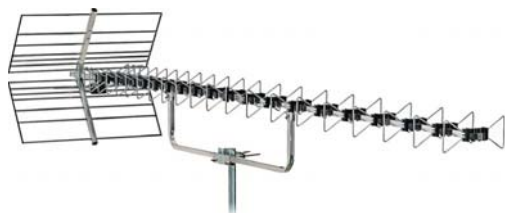
Gain: 13dB

F/B Ratio: 27dB

Boom length: 122cm

FRACARRO

BLU920F

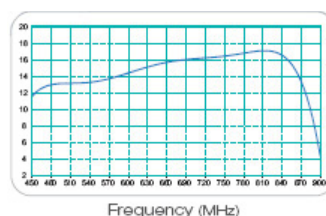


Channels: 28–69, b4&5

Gain: 18dB

F/B Ratio: 30dB

Boom length: 242cm

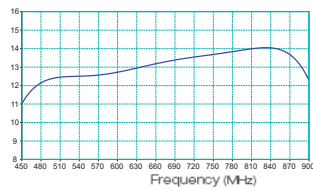


90 element UHF antenna.

Easy to install, large corner reflectors improve ghost rejection. Extra physical strength withstands high wind load.

Antennas & Mounting Hardware

OMEGA PRE-ASSEMBLED UHF YAGIS

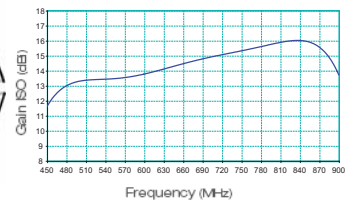


OMEGA5

FRACARRO

OMEGA5 5 directors. Au ch. 28–69, bands 4 & 5, 14dB gain, 32dB front to back ratio.

OMEGA8 8 directors. Au ch. 28–69, bands 4 & 5, 16dB gain, 32dB front to back ratio.



OMEGA8

OMEGA are a series of high performance TV antennas. Full wavelength elements soften the focus. Includes optimal F connector dipoles. Easy to install for either Horizontal or Vertical polarities, fits mast to 60mm, up to 30° tilt.

UHF PHASED ARRAY

Petite Performers

FRACARRO

PU4F

Channels: 28–69, b4&5

Gain: 12dB

F/B Ratio: 21dB

Dimensions: 71x38.5cm

FRACARRO

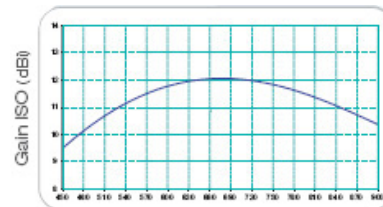
P54F

Channels: 39–69, b5

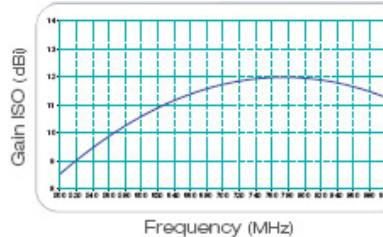
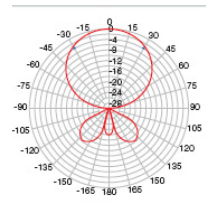
Gain: 12dB

F/B Ratio: 24dB

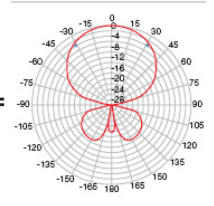
Dimensions: 62x32cm



PU4F



P54F



Increased Capture Area

FRACARRO

PU4AF

Channels: 28–69, b4&5

Gain: 14dB

F/B Ratio: 20dB

Dimensions: 50x76.5cm

FRACARRO

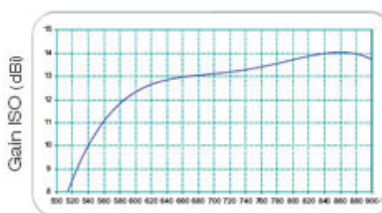
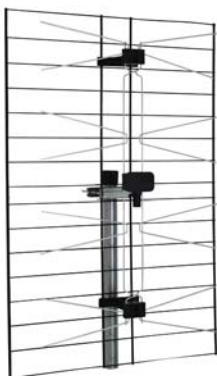
P54AF

Channels: 39–69, b5

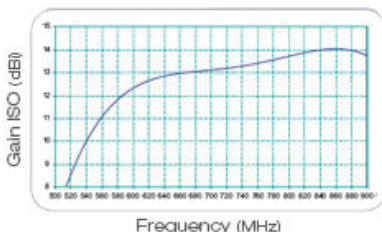
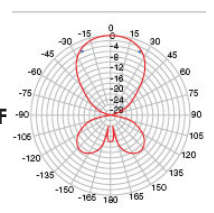
Gain: 14dB

F/B Ratio: 22dB

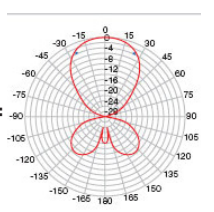
Dimensions: 71x38.5cm



PU4AF



P54AF



FRACARRO

PVP

Vertical polarisation bracket, permits vertical installation of PU4F, P54F, PU4AF & P54AF.

Tech Tip:

Phased Array antennas provide outstanding rejection of multipath reflected signal when receiving vertically polarised signals.

Antennas & Mounting Hardware

FRACARRO

PU8VF

Vertical pre stack



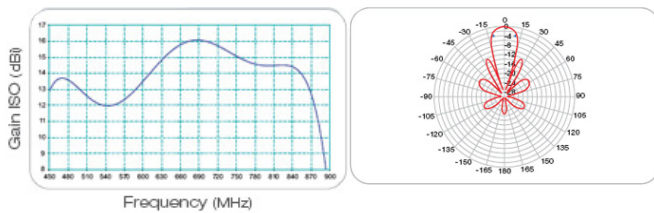
*Now shipping
with F Connector!*

Channels: 28–69, bands 4 & 5

Gain: 16dB

F/B Ratio: 26dB

Dimensions: 156x40cm



FRACARRO

PU8F

Horizontal pre stack



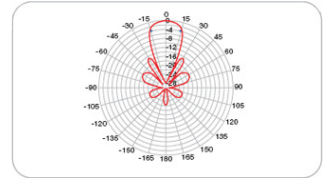
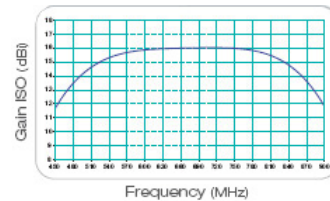
Channels: 28–69, b4&5

Gain: 16dB

F/B Ratio: 26dB

Dimensions: 88.5x72cm

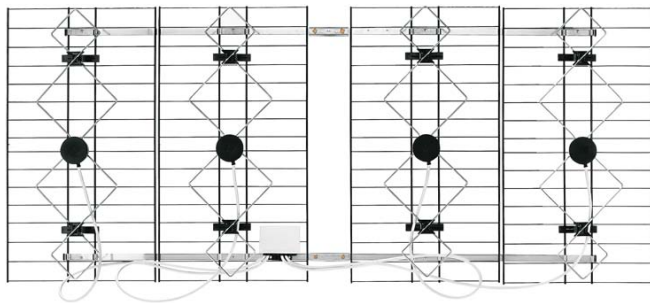
*Now shipping
with F Connector!*



FRACARRO

PU16F

Deep DEEP Fringe



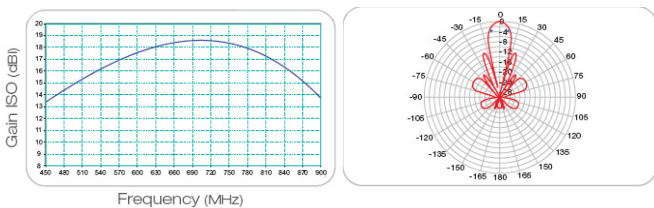
*Now shipping
with F Connector!*

Channels: 28–69

Gain: 18.5dB

F/B Ratio: 28dB

Dimensions: 167x72cm



Tech Tip:

PU16 and PU8 can lift terminally weak or diffused signal. As well as a larger capture area, they give extra gain, narrower beamwidth and higher front to back ratio than a single phased array antenna. Mount PU16 securely as movement of narrow beamwidth antennas can cause signal fade.

ALCAD
AP369F

The weak TV signal team

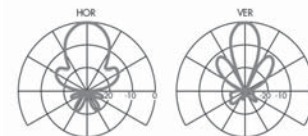
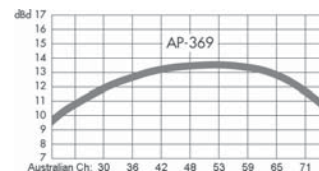
Channels: 28–69, bands 4&5

Gain: 13.5dB

F/B Ratio: 20dB

Dimensions: 83.5x68cm

Mounting Bracket: New easy to assemble construction and tool less install, mounting bracket suits masting from 20 to 60mmØ with vertical polarity.



*Now shipping
with F Connector!*

ALCAD



BR411 12V DC, +14dB gain, noise figure 1.4dB.

BR441 5V DC, +14dB gain, noise figure 1.4dB.

Pre-amplifier — fits the AP369F antenna, inside the balun casing to amplify every microvolt the antenna develops. As the magic is done between the antenna and the first chip, the output can then be further amplified with less noticeable loss of quality.

Antennas & Mounting Hardware

RADIO SERVICES

FM BAND2 88-108MHz

FRACARRO
ANT1200A



Gain:	2.1dB
Boom length:	96cm
Element count:	1
Dimensions:	96x77cm
Carton Quantity:	10

Vertical, Horizontal or Circular polarity FM Radio dipole. F connector.

DAB+ HALF BAND 3

FRACARRO
ANT3030810



Gain:	6dB
Boom length:	176cm
Element count:	4
Carton Quantity:	15

A half band 3 antenna perfect for Australian DAB+ frequencies. Quick assembly and easy vertical mounting ensures fast installation. DAB+ beyond the city? Yes.

FRACARRO
5FM



Gain:	8dB
Boom length:	262cm
Element count:	5
Carton Quantity:	15

High gain 88-108MHz band 2 FM antenna, outstanding results over longer distances. Requires PV2 for vertical mounting.

SET TOP ANTENNAS

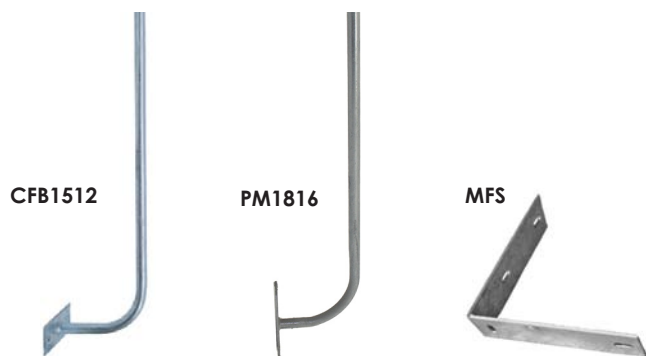


DIPUHF	Dipole antenna 190mmØ with TV mount. Includes 750mm of 300Ω ribbon. Surprising performance on UHF and band 3. BT1 balun required for 75Ω.
SBSA	Set Top telescopic antenna. Clips into TV back bracket. 980mm maximum element length. Complete with 750mm ribbon. Requires BT1 balun for 75Ω connection.
TVTA	Indoor telescopic antenna. Retail ready blister pack with colour card, dummy-proof instructions and Bar Code. Each element extends to 750mm. 900mm of 75Ω coax and PAL plug. Stable weighted base! Black or White.

Antennas & Mounting Hardware

ANTENNA MOUNTING HARDWARE & ACCESSORIES

Fascia & Pole Mounts



CFB1212	Fascia mount 1.2m x 25mmØ mast x 1.2mm wall and 5mm plate. Galvanised.
CFB1512	Fascia mount 1.5m x 25mmØ mast x 1.2mm wall and 5mm plate. Galvanised.
CFB1812	Fascia mount 1.8m x 25mmØ mast x 1.2mm wall and 5mm plate. Galvanised.
CFB1816	Fascia mount 1.8m x 25mmØ mast x 1.6mm wall and 5mm plate. Galvanised.
CFB2716	Fascia mount 2.7m x 25mmØ mast x 1.6mm wall and 5mm plate. Galvanised.
PM1816	Pole Mount 1.8m x 25mmØ mast x 1.6mm wall as CFB with mounting plate at 90° to CFB. Galvanised.
MFS	Metal Fascia Support, Hot Dip galvanised. Secures fascia mount to metal fascia. Galvanised.

Mast Extensions



ME900	.9m mast extension, galvanised.
ME1200	1.2m mast extension, galvanised.
ME1500	1.5m mast extension, galvanised.
ME1800	1.8m mast extension, galvanised.
MEKIT	Mast Extension Kit. 2 x long 140mm U bolts with 6 vee blocks, nuts and washers. Allows masting to be fitted side by side for extra height.

Rafter Mounts



RM1816	Rafter Mount 1.8m x 25mmØ mast x 1.6mm wall. Bolts to rafter.
RM2716	Rafter Mount 2.7m x 25mmØ x 1.6mm wall. Bolts to rafter. Stay bar or guy wire support required.

Use FKLA, Aquaseal or Fleximount tile to weatherproof roof. All rafter mounts are galvanised.

Antenna Gutter Mount



ANTGM	Gutter mount 1.8m x 25mmØ mast x 1.6mm wall and 5mm plate. Multiple coach screw holes in mounting plate provides many fitting options. Galvanised.
ANTGM2	Gutter mount 1.8m x 25mmØ mast x 1.6mm wall and 5mm plate. Two Piece. Galvanised.

Easy mounting solution for metal fascia homes.

Antennas & Mounting Hardware

Eave Mounts



EM230	Eave Mount 230mm x 25mmØ. Fitted with offset V block and U Bolts. Galvanised.
EM280	Eave Mount 280mm x 25mmØ. Fitted with offset V block and U Bolts. Galvanised.
EM460	Eave Mount 460mm x 25mmØ. Galvanised.
EM690	Eave Mount 690mm x 25mmØ. Galvanised.
EM1020	Eave Mount 1.02m x 25mmØ. Galvanised.
EM1500	Eave Mount 1.5m x 25mmØ. Galvanised.

Masting



M1825	1.8m x 25mmØ (6'x1").
M1832	1.8m x 32mmØ (6'x1&1/4").
M2425	2.4m x 25mmØ (8'x1").
M2432	2.4m x 32mmØ (8'x1&1/4").
M3032	3.0m x 32mmØ (10'x1&1/4").
M3632	3.6m x 32mmØ (12'x1&1/4").
M4532	4.5m x 32mmØ (15'x1&1/4").
M4538	4.5m x 38mmØ (15'x1&1/2").
M61476	6.1m x 47.6mmØ (20').

Eave Mount Kit



EMK	Eave Mount Kit. 1 x 230mm x 25mmØ eave mount, 1 x 690mm x 25mmØ eave mount, 2 x 5/16" U bolts, nuts, washers & 1 x offset vee block. Short mount fixes to fascia board, longer to brickwork below, to support up to 4.5m of masting. Offset vee block allows use with almost any dimension between fascia board and wall.
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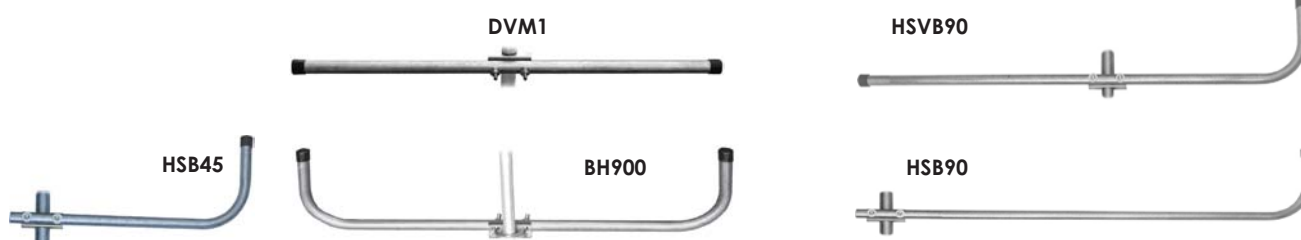
Masting Caps



CAPM25 **CAPM32** **CAPM38**

CAPM25	Cap suits any 25mmØ tube.
CAPM32	Cap suits any 32mmØ tube.
CAPM38	Cap suits any 38mmØ tube.

Standoff Mounts



BH900	Bullhorn 900mm x 25mmØ. With U Bolt and V Block in centre of masting. Fits masting up to 56mmØ.
DVM1	Double Vertical Mount, 1.0m x 25mmØ. Use for any two vertically polarised antennas.
HSB45	Horizontal Stand-off, 450mm x 25mmØ. Fits masting up to 56mmØ.
HSB90	Horizontal Stand-off, 1.0m x 25mmØ. Fits masting up to 56mmØ.
HSBV90	Horizontal and Vertical Stand-off, 900mm x 25mmØ. Fits masting up to 56mmØ.

Antennas & Mounting Hardware

Staybars & Staybar Collars



SBF700

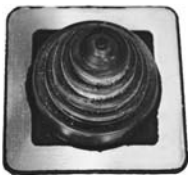


SBC25

SB1216	Stay Bar 1.2m (4') x 16mmØ.
SB1816	Stay Bar 1.8m (6') x 16mmØ.
SB2416	Stay Bar 2.4m (8') x 16mmØ.
SBC25	Stay Bar Collar for 25mmØ mast.
SBC32	Stay Bar Collar for 32mmØ mast.
SBC38	Stay Bar Collar for 38mmØ mast.
SBF700	Flexible extendable Stay Bar, extends from 700mm x 1400mm.
SBF900	Flexible extendable Stay Bar, extends from 900mm x 1800mm.

Stay bars are sold individually.

Flashing Kits



AQUASEAL1



FLEXITILE LARGE



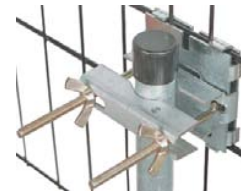
FLEXITILE



FKLA

AQUASEAL1	EPDM flash for up to 63mmØ masting on a steel or tile roof. Shapes easily to roof profile for good weather seal with silicone.
FLEXITILE LARGE	Large rubber flashing kit covers more than 1 tile, better for larger masting! Non-toxic, non corrosive and light weight.
FLEXITILE	New rubber/aluminium flashing. Non-toxic, non corrosive and light weight. 450mm x 280mm. Includes cable entry/exit point.
FKLA	Lead flashing designed for antenna mounts. Now with new acrylic coating to help prevent leaching of lead into water storages.

Vertical Polarisation Bracket for Fracarro Phased Array



FRACARRO

PVP

Vertical polarisation bracket, required for vertical installation of PU4F, P54F, PU4AF & P54AF.

Vertical Polarisation And Tilt Brackets



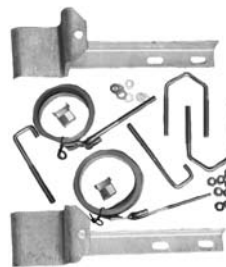
PV10



PVZ60

PV10	Vertical Polarisation Bracket 270mm x 25mmØ, gives 200mm stand off. Fits masting up to 60mmØ.
PV2	Vertical Polarisation Bracket 500mm x 25mmØ, gives 460mm stand off. Fits masting up to 56mmØ.
PV8	Tilt bracket for Fracarro Yagi antennas.
PVZ60	Enables use of masting up to 60mmØ and the ability to tilt any FR 10 element UHF yagi antenna.

Chimney Kits



CBK6



CBK12



CCBKT

CBK6	Two individual brackets, each with their own strap, one end pre-sealed to a 5/16" J bolt. Additional J bolts, strap seals, 5/16" U bolts, nuts and washers are provided. Allows brackets to be fitted as far apart as practical to better spread the load. Hot Dip Galvanized.
CBK12	320mm between U bolts. Complete with strap, one end pre-sealed to a 5/16" J bolt. Another J bolt, strap seal, 5/16" U bolts, nuts and washers included. Supports 2 big antennas on mast up to 2.4m. Hot Dip Galvanized.
CCBKT	Curved Chimney Bracket Kit, 1.8m. Low cost complete chimney mount, with strap presealed to 5/16" J bolt, separate J bolt, strap seal, nuts and washers are included.

Antennas & Mounting Hardware

Chimney Kit Accessories

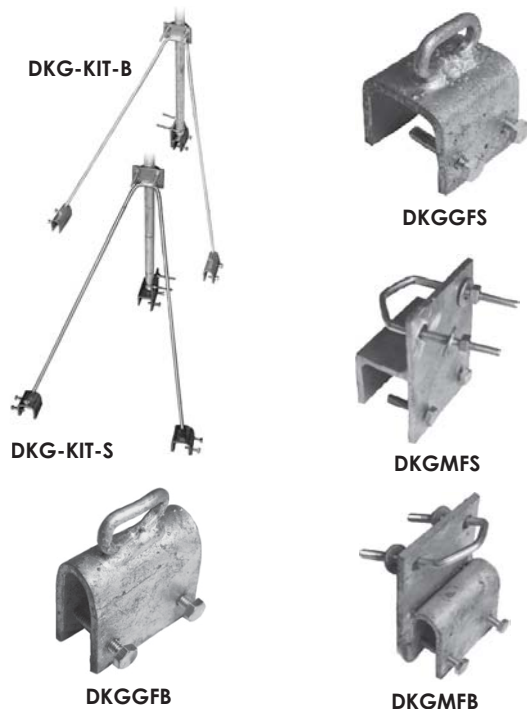


JBS516 J Bolt Square 100 x 25mm x 5/16".

JBSS J Bolt, Strap and Seal assembly.

STRAP-SEAL Locks to chimney strap.

Decking Kits



DKG-KIT-B Decking Kit Brownbuilt. Fits steel deck roofing with Narrow Ribs.

DKG-KIT-S Decking Kit Stramit. Fits steel deck roofing with Wide Ribs.

DKG-MF-B Decking Mast Foot Brownbuilt.

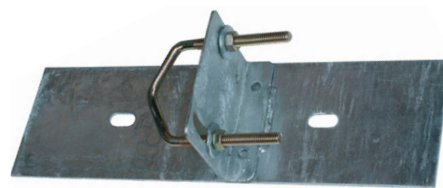
DKG-MF-S Decking Mast Foot Stramit.

DKG-GF-B Decking Guy Foot Brownbuilt.

DKG-GF-S Decking Guy Foot Stramit.

All decking kits products are hot dip galvanised.

Light Angle Roof Mount



LARM Light Angle Roof Mount (Hot Dip Galvanised)
27 x 9cm. 12mm fixing holes 200 and 240mm apart.

Easily mount your pole anywhere on the roof with this easy to use mount. Staybars or guywire required to secure pole.

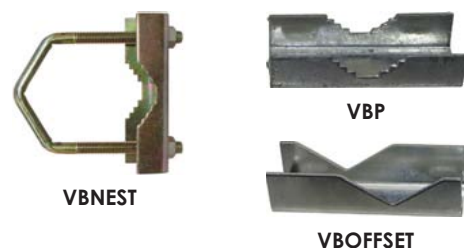
U-Bolts & V Blocks



UB1450 1/4" x 90mm x 50mm.

UB51685 5/16" x 85mm x 65mm.

UB516140 5/16" x 140mm x 65mm.



VBP Vee Block Plated.

VBNest Vee Block U-bolt Nuts and Washers.

VBOFFSET Vee Block Offset Plated.

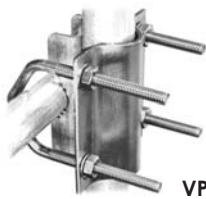
D Clamp



DCB D Clamp Bracket. 185mm stand off from wall, 393mm between 10mmØ mounting positions with options 30mm either side. H.D. Galvanised, U bolt and nuts included.

Antennas & Mounting Hardware

Vertical Cross Bar Mounts



VPB1



VPB2

VPB1

Support for up to 32mmØ crossbar. The strongest crossbar support of it's kind.

VPB2

Vertical Mount Assembly, crossbar support.

Tripod Mounts



TRI KIT



TRI STRAMIT



TRM IRON



TRM TILE

TRM IRON

Iron Roof Tripod Mount for freestanding fitting of light weight antennas in 'sweet spots'. Includes 1.2m mast.

TRM TILE

Tile Roof Tripod Mount for freestanding fitting of light weight antennas in 'sweet spots'. Includes 1.2m mast. Holes allow for fixing to batten with roofing screws etc.

TRIKIT

New tile roof mount. Special Z brackets allow no penetration of the tiles. Quick, Water proof mount mast not included.

TRIP1.8

Tripod Mast 1.8m. To suit TRIKIT.

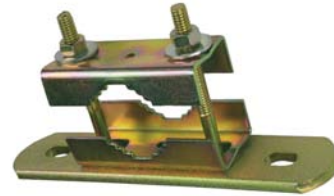
TRI STRAMIT

TRI KIT option. Mounting foot with bolt.

Tech Tip:

SILPRG along tops of corrugated iron should be used when fitting TRM IRON to reduce corrosion.

Flat Wall Mount



FWM

Flat Wall Mount. Two will fix masting to wall with less than 5mm over hang from flashing etc. Complete with 2 x vee blocks.

Right Angle Wall Mount



RAWM

Simple wall mount complete with U bolt and nuts for up to 47mm (2&1/4")Ø masting. Size is only 150mm x 95mm (25 x 5mm bar), with 3 x 9mmØ mounting holes 55mm centre to centre, and 3 x masonry fixings for 8mm drill and 40mm long screws. Passivated zinc finish. 2 required for most applications.

Ridge Mounts



RMI



RMT120

RMI

Ridge Mount Iron. Iron roof ridge cap mast foot.

RMT120

Ridge Mount Tile. Tile roof 120° ridge cap mast foot.

All Ridge Mounts are galvanised.

Antennas & Mounting Hardware

NUTS, BOLTS & WASHERS



HN14P



WN316



WS316ZP



CB3825P



DNP10



CS3815



SAM840



HW13M4



RS1265



SS3825P



SC3162

CB3825P	Cup Square Bolt 3/8" x 2 & 1/2" plated. Square shoulder, round head, for timber or steel.
CB382P	Cup Square Bolt 3/8" x 2" plated.
CS3815	Coach Screw 3/8" x 1 & 1/2".
CS382	Coach Screw 3/8" x 2".
CS3825	Coach Screw 3/8" x 2 & 1/2".
CS51615	Coach Screw 5/16" x 1 & 1/2".
CS51625	Coach Screw 5/16" x 2 & 1/2".
DNP10	Wall Plug. Use CS51615 in mortar or brick etc. 10mmØ hole 60mm+ deep.
DNP12	Wall Plug. Use CS3825 in mortar or brick etc. 12mmØ hole 75mm+ deep.
HN14P	1/4" Hexagon Nut, plated.
HN38P	3/8" Hexagon Nut, plated.
HN316P	3/16" Hexagon Nut, plated.
HN516P	5/16" Hexagon Nut, plated.
HW13M4	Hollow wall anchor, 4mm threads.
RS1265	Roofers Screw galvanised, with neoprene washer. 12 gauge 65mm long. For corrugated iron roof.

SAM840	8 x 40mm Sleeve Anchor, plated.
SAM890	8 x 90mm Sleeve Anchor, plated.
SAM1050	10 x 50mm Sleeve Anchor, plated.
SAM1075	10 x 75mm Sleeve Anchor, plated.
SB1060	Screwbolt. Screws directly into concrete, 10mmØ hole 60mm+ deep.
SC3162	Screw 3/16" x 2" zinc plated, pan head replacement antenna screw.
SC316175	Screw 3/16" x 1.75" zinc plated, pan head replacement antenna screw.
SS3825P	Set Screw 3/8" x 2 & 1/2", plated thread up the shank to a hexagon head.
WN316	Wing Nut 6", plated.
WS316ZP	3/16" Washer, plated.
WS14ZP	1/4" Washer, plated.
WS516ZP	5/16" Washer, plated.
WS38ZP	3/8" Washer, plated.
WSC516	Cyclone washer.

GUYING HARDWARE

Guy Wire



GW180/7.90	Guy Wire 180m 7 strands each .9mm.
GW30/6X1.12	Guy Wire 30m 6 strands each 1.12mm.

Screw Eyes



SE3	Screw Eye 3" Zinc Plated.
SE4	Screw Eye 4" Zinc Plated.
SE5	Screw Eye 5" Zinc Plated.
SE7	Screw Eye 7" Zinc Plated.

Antennas & Mounting Hardware

Guy Anchor Plate



GAP

Galvanized guy wire anchor plate. Provides multiple guy wire anchor points. 270mm long, 80mm between mounting holes.

Galvanised Guy Cleat



GCG25

Galvanised Guy Cleat. 120mm long, 25mm between each 10mm mounting hole.

Telescopic Masts



TM20	6m (20') 2 piece telescopic mast. Accessory pack (TMA20) required.
TM30	9m (30') 3 piece telescopic mast. Accessory pack (TMA30) required.
TM40	12m (40') 4 piece telescopic mast. Accessory pack (TMA40) required.
TM50	15m (50') 5 piece telescopic mast. Accessory pack (TMA50) required.
TMA20	Accessory kit for TM20.
TMA30	Accessory kit for TM30.
TMA40	Accessory kit for TM40.
TMA50	Accessory kit for TM50.

Turnbuckles



TB14	Turnbuckle Hook and Eye 1/4" ZP.
TB516	Turnbuckle Hook and Eye 5/16" ZP.

Guy Fascia Bracket



GBF

Secures guy wires beyond roof edge. Screws to either timber or metal fascia. Hot Dip Galvanised.

Clamps



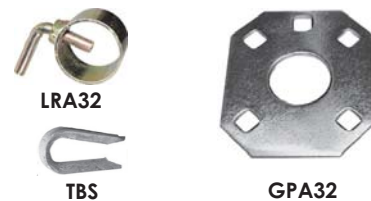
GWC5

GWC3

GWC3 Guy Wire Clamp 3mm zinc plated.

GWC5 Guy Wire Clamp 5mm zinc plated.

Guy Plates, Lock Rings & Thimbles



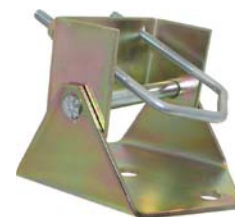
LRA32

TBS

GPA32

GPA32	Guy Plate A for 32mm or 1.25" OD tube.
GPB39	Guy Plate B for 39mm or 1.5"OD tube.
GPC43	Guy Plate C for 43mm or 1.75"OD tube.
GPD50	Guy Plate D for 50mm or 2"OD tube.
LRA32	Lock Ring A for 32mm or 1.25"OD tube.
LRB39	Lock Ring B for 39mm or 1.5"OD tube.
LRC47	Lock Ring C for 47mm or 1.75"OD tube.
LRD50	Lock Ring D for 50mm or 2" OD tube .
TBS	Thimbles Heavy Duty.

Telo Foot Mount



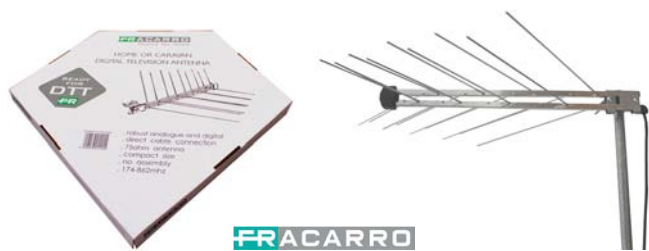
TFM

Telo Foot Mount. Swivels for installation to almost any flat surface regardless of angle. 12mm fixing holes 100mm apart.

Antennas & Mounting Hardware

CARAVAN KITS & ACCESSORIES

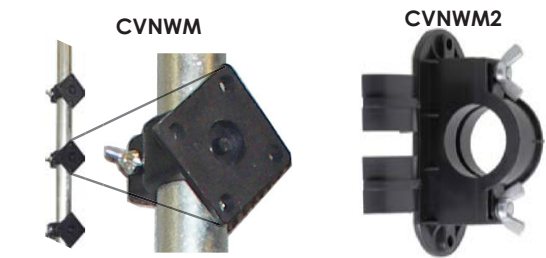
Caravan Antenna Kit



KITLPV345HVRP Caravan Antenna Kit
- 10 metre connection lead
- Specially designed retail box for safe storage

Channels:	VHF: 6–12, UHF: 28–69
Gain:	9.5dB
Boom length:	71cm

Caravan Mast Wall Clamp



CVNWM Set of 3 wall clamps for 25mmØ masting. Suits M2425 etc. Includes 8G 20mm self tapping screws. Secure soft wall antenna mount, spreads load over a wider area.

CVNWM2 Caravan wall clamp for 32mmØ masting. Also suits 25mmØ masting if used with supplied inserts. Secure soft wall antenna mount installed via screws and supplied double-sided tape.

Satellite TV Dish Kit



KITVASTCARAVAN

Receive clear pictures anywhere in Australia. Heavy duty dish, LNB, folding tripod mount and cabling - with SQ701 signal quality meter, for fast satellite alignment. Suitable for VAST, Aurora, or FTA. Receiver supplied separately.

Caravan Extension Masts



CEM3-6 32mmØ mast with 28mmØ twist lock telescoping section, 1.8m extends to 3.6m, Aluminium.

CEM4-8 32mmØ mast with 28mmØ twist lock telescoping section, 2.4m extends to 4.8m, Aluminium.

Draw Bar Clamp



CDBC Permits fixing of mast to drawbar as per picture, the strongest structure in a caravan.

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Amplifiers & Modulators

AMPLIFIERS

IN LINE AMPLIFIERS



LA1-18F +18dB VHF/UHF 40–900MHz fixed gain low cost TV line amplifier. 103dBµV max. out, nf <5dB type. F connectors. 12V DC @<50mA. Use with PS12DCP supply or CA215 amplifier etc.

Handy for beating the loss of long cable runs. Out to In Power pass! FBLKDC may be required to stop antenna shorting supply.



LA2-20 +18dB Satellite I.F. 950-2150MHz Line amplifier. 110dBµV max. out, nf <7dB. 14/18V DC @40mA. Passes up to 500mA.

SINGLE CHANNEL MAST AMPLIFIER

Mast amplifiers that amplify one TV channel only. Eliminates interfering signals, enables better MATV results from weak signals. Specify channel with your order.



	Band:	Noise:	Gain:	Power Supply:
ATB/..	UHF	4dB	+30dB	12V DC @7mA
AT2/..	VHF	4dB	+30dB	12V DC @7mA

Brown terminal: Output and Power supply. Limited channels available.

AP369 BALUN PRE-AMPLIFIERS

Fits inside ALCAD AP369 antennas right on the dipole, amplifying every microvolt the antenna develops. As the magic is done between the antenna and the first chip, the output can then be further amplified with less noticeable loss of quality.



BR411	12V DC, 14dB gain, noise figure <1.4dB.
BR441	5V DC, 14dB gain, noise figure <1.4dB. Power from a compatible Set Top Box!

Amplifiers & Modulators

MASTHEAD AMPLIFIERS

FRACARRO MAST AMPLIFIERS

MAP SERIES



MAP206

MAP105-109



MAP402

MAP300-315

FRACARRO

	Input:	Input Band: (MHz)	Gain: (dB)	Output Level: (dBμV)	Gain Adjust: (dB)	Power Consumption: (mA @ 12V DC)
MAP105	1	UHF	33	108	15	85
MAP106	1	VHF & UHF	34	108	15	75
MAP109	1	VHF & UHF	17	92	15	65
MAP206	2	VHF & UHF	35, 36	108	15, 15	75
MAP315	3	VHF, UHF & UHF	34, 40, 40	105	15, 15, 15	95

FRACARRO

	Input:	Input Band: (MHz)	Gain: (dB)	Output Level: (dBμV)	Gain Adjust: (dB)	Power Consumption: (mA @ 24V DC)
MAP300	3	VHF, UHF & UHF	34, 40, 40	108	15, 15, 15	80
MAP402	4	VHF, B4, B5 & UHF	34, 41, 41, 42	108	15, 15, 15, 15	90

- The innovative plastic housing system locks the cover in place and allows the amplifier to be tilted inside for quick and easy installation.
- Operating temperature: -10 to 55°C.
- Totally shielded metal housing with F connectors.
- Adjustable plastic strap for mast mounting Ø 60mm max.



JS2/RT

FRACARRO

	Input:	Input Band: (MHz)	Gain: (dB)	Output Level: (dBμV)	Gain Adjust: (dB)	Power Consumption: (mA @ 12V DC)
JS2/RT	1	47-862	7-22	108	15	60

- Excellent low noise amplifier for digital.
- Totally shielded metal housing with F connectors.
- Power requirement 12V DC, on a single output.
- Operating temperature: -10 to 55°C.
- Adjustable plastic strap for mast mounting Ø 60mm max.



JK6RP45

FRACARRO

JK6RP45

3 inputs: B1 +21dB and B3 +19dB; B4 Au Ch 20 to 35 +29dB; B5 Au Ch 39 to 75 +31dB. 3 x -20dB constant 75Ω gain controls, F connection, Requires 12V DC@75mA power supply.

JK6RP45S

3 inputs: B1 +21dB and B3 +19dB; B4 Au Ch 20 to 33 +29dB; B5 Au Ch 37 to 75 +31dB. 3 x -20dB constant 75Ω gain controls, F connection, Requires 12V DC@75mA power supply.

EM2/L3U



ES1/5MZS



FRACARRO

EM2/L3U

3 inputs: B1 & 2 +27dB, B3 +28dB, UHF +22dB, 12V DC@55mA. 12V DC output! Max 108dBμV.

ES1/5MZS

2 inputs: B5 (AuCh.38-75) +11dB, B1, 2, 3 & 4 (Ch.0-32) coupled @ -5dB. 12V DC@25mA.

Amplifiers & Modulators

ALCAD MAST AMPLIFIERS

Alcad masthead amplifiers are 100% shielded with easy control access and F type inputs/outputs. The weatherproof ABS housing has an improved lock mechanism which keeps the weather out. Test points permit in circuit testing and can double as additional reduced level outputs. Choose Alcad for performance, flexibility and accessibility. Maximum output is a healthy 108dBμV on 2 equal channels.



AM112-AM115



AM126



AM206-AM217



AM315-AM316



AM318-AM319



AM416



	Gain:	Inputs:	Outputs:	Noise:	Power:
AM112	UHF +24dB fixed	1x UHF	1 X 108dBμV Test point -10dB	2.5dB	12V DC
AM115	B1 & B3 +30dB (adj -22dB midstage) FM Rejected UHF +36dB (adj -16dB midstage)	1x Combined VHF/UHF	1 x 108dBμV Test point -15dB	VHF 5dB UHF 2.5dB	12V DC @ 45mA Switchable 12V DC 50mA power to input
AM126	B1 & B3 +24dB (adj -24dB midstage) FM +14dB UHF +36dB (adj -16dB midstage)	1 x Combined VHF/UHF 1 x UHF (cut link for separate inputs)	1 x 108dBμV Test point -15dB	<3dB	22V AC or 24V DC
AM206	B1 & B3 +24dB (adj -24dB midstage) FM +14dB UHF +36dB (adj -16dB midstage)	1 x VHF 1 x UHF	1 x 108dBμV Test point -15dB	VHF 4.5dB UHF 2.5dB	24V DC @ 45mA Switchable 24V DC 50mA power to input
AM210	B3 +16dB (adj -18dB) UHF +24dB (adj -16dB)	1 x VHF (B3) 1 x UHF	1 x 108dBμV Test point -15dB	VHF <4.5dB UHF <2.5dB	12V DC @ 45mA Switchable 12V DC 50mA power to UHF input
AM215	B1 & B3 +24dB (adj -24dB midstage) FM Rejected UHF +36dB (adj -16dB midstage)	1 x VHF (B1 & B3) UHF	1 x 108dBμV Test point -15dB	VHF 4.5dB UHF 2.5dB	12V DC @ 45mA Switchable 12V DC 50mA power to UHF input
AM216	B1 & B3 +24dB (adj -24dB midstage) FM +14dB UHF +36dB (adj -16dB midstage)	1 x VHF 1 x UHF	1 x 108dBμV Test point -15dB	VHF 4.5dB UHF 2.5dB	12V DC @ 45mA Switchable 12V DC 50mA power to UHF input
AM217	B1, FM & B3 +18dB (adj -24dB midstage) UHF +36dB (adj -16dB midstage)	1 x VHF 1 x UHF	1 x 108dBμV Test point -15dB	VHF 4.5dB UHF 2.5dB	12V DC @ 45mA Switchable 12V DC 50mA power to UHF input
AM315	B1 & B3 +30dB (adj -22dB midstage) FM Rejected UHF 1 +40dB (adj -16dB midstage) UHF 2 +40dB (adj -16dB midstage)	1 x VHF (B1 & B3) 2 x UHF	1 x 108dBμV Test point -15dB	VHF 4dB UHF 5dB	12V DC @ 45mA Switchable 12V DC 50mA power to both UHF inputs
AM316	B1 & B3 +30dB (adj -22dB midstage) FM +20dB UHF 1 +40dB (adj -16dB midstage) UHF 2 +40dB (adj -16dB midstage)	1 x VHF 2 x UHF	1 x 108dBμV Test point -15dB	VHF 4dB UHF 5dB	12V DC @ 45mA Switchable 12V DC 50mA power to both UHF inputs
AM318/31-34	B1 & B3 +30dB (adj -20dB midstage) FM Rejected UHF 1 Ch 20-31 +38dB (adj -16dB midstage) UHF 2 Ch 34-69 +38dB (adj -16dB midstage)	1 x VHF (B1 & B3) 1 x UHF (ch 20-31) 1 x UHF (ch 34-69)	1 x 108dBμV Test point -15dB	VHF <4dB UHF <3dB	12V DC @ 45mA Switchable 12V DC 50mA power to both UHF inputs
AM318/37-40	B1 & B3 +30dB (adj -20dB midstage) FM Rejected UHF 1 Ch 20-37 +38dB (adj -16dB midstage) UHF 2 Ch 40-69 +38dB (adj -16dB midstage)	1 x VHF (B1 & B3) 1 x UHF (ch 20-37) 1 x UHF (ch 40-69)	1 x 108dBμV Test point -15dB	VHF <4dB UHF <3dB	12V DC @ 45mA Switchable 12V DC 50mA power to both UHF inputs

Amplifiers & Modulators

	Gain:	Inputs:	Outputs:	Noise:	Power:
AM319/31-34	B1 & B3 +30dB (adj -20dB midstage)				
	FM +20dB	1 x VHF	1 x 108dBμV	VHF <4dB	12V DC @ 45mA
	UHF 1 Ch 20-31 +38dB (adj -16dB midstage)	1 x UHF (ch 20-31)	Test point -15dB	UHF <3dB	Switchable 12V DC
	UHF 2 Ch 34-69 +38dB (adj -16dB midstage)	1 x UHF (ch 34-69)			50mA power to both UHF inputs
AM416		1 x B1			
	B1, B2 & B3 +26dB (adj -22dB midstage)	1 x B2	1 x 108dBμV	VHF 5.5dB	12V DC @ 45mA
	UHF +38dB (adj -16dB midstage)	1 x B3	Test point -15dB	UHF 2.5dB	Switchable 12V DC
		1 x UHF			50mA power UHF input
AM417		1 x B1 & B2			
	B1, B2 & B3 +26dB (adj -22dB midstage)	1 x B3	1 x 108dBμV	VHF 5dB	12V DC @ 45mA
	UHF 1 +38dB (adj -16dB midstage)	2 x UHF	Test point -15dB	UHF 5.5dB	Switchable 12V DC
	UHF 1 +38dB (adj -16dB midstage)				50mA power to both UHF inputs

KINGRAY MAST AMPLIFIERS

Kingray



	Gain:	Inputs:	Outputs:	Noise:
MHU24F	25dB	1, 2 or Combination, F connection	1 x 108dBμV	<2dB
MHU24FS	25dB	1, 2 or Combination, F connection and shielded case	1 x 108dBμV	<2dB
MHU24GE	24dB	1 or 2, saddle and screw connection	1 x 105dBμV	<2dB

Requires 14VDC or 17VAC power supply.

Kingray



	Gain:	Inputs:	Outputs:	Noise:
	34dB	1, 2 or Combination, F connection	1 x 108dBμV	<2.5dB
MHU34FS	34dB	1, 2 or Combination, F connection and shielded case	1 x 108dBμV	<2.5dB
MHU34G	34dB	1, 2 or Combination, saddle and screw connection	1 x 105dBμV	<2.5dB

Requires 14VDC or 17VAC power supply.

Kingray



	Gain:	Inputs:	Outputs:	Noise:
MHU44G	44dB	1 or 2, saddle and screw connection	1 x 108dBμV	<2.5dB
MHU44B5G	B5: 44dB	1 or 2, saddle and screw connection	1 x 108dBμV	<2.5dB

MHU44B5G, for use with a separate Band 5 only UHF antenna, and diplex a separate VHF / Band 4 UHF antenna. Requires 14VDC or 17VAC power supply.

Kingray



	Gain:	Inputs:	Outputs:	Noise:
MHV34	VHF: 34dB	1 or 2, saddle and screw connection	1 x 108dBμV	<2dB
MHV44HLG	VHF: 44dB, UHF: 10dB	1 or 2, saddle and screw connection	1 x 108dBμV	VHF: <3dB UHF: N/A

MHV44HLG, Screw and saddle masthead designed to amplify a separate VHF antenna and diplex a separate UHF antenna with low gain. Bypass/Diplex Low Band. Requires 14VDC or 17VAC power supply.

Amplifiers & Modulators



Kingray

	Gain:	Inputs:	Outputs:	Noise:
KMW32FS	VHF: 16–26dB, UHF: 22–32dB	1, 2 or combination, F connection, shielded case	1 x 108dBμV	VHF: <3.5dB UHF: <2.5dB
KMD24FS	VHF: 8–18dB, UHF: 12–24dB	1, 2 or combination, F connection, shielded case	1 x 108dBμV	VHF: <3.5dB UHF: <2.5dB
KMU32FS	VHF: -1dB, UHF: 22–32dB	1, 2 or combination, F connection, shielded case	1 x 108dBμV	VHF: N/A UHF: <2.5dB

Requires 14VDC or 17VAC power supply. Fixed -25dB FM and Pager filters.



Kingray

	Gain:	Inputs:	Outputs:	Noise:
MHW24F	VHF: 12–15dB, UHF: 24dB	1, 2 or combination, F connection	1 x 108dBμV	VHF: <3.5dB UHF: <2.1dB
MHW24FE	VHF: 12–15dB, UHF: 24dB	1, F connection	1 x 105dBμV	VHF: <2dB UHF: <2.5dB
MHW24FS	VHF: 12–15dB, UHF: 24dB	1, 2 or combination, F connection, shielded case	1 x 108dBμV	VHF: <3.5dB UHF: <2.1dB
MHW24GE	VHF: 14–20dB, UHF: 24dB fixed	1, saddle and screw connection	1x 105dBμV	<3dB

Requires 14VDC or 17VAC power supply.



Kingray

	Gain:	Inputs:	Outputs:	Noise:
MHW34F	VHF: 22–26dB, UHF: 34dB	1, 2 or combination, F connection	1 x 108dBμV	VHF: <3dB UHF: <2.5dB
MHW34FS	VHF: 22–26dB, UHF: 34dB	1, 2 or combination, F connection, shielded case	1 x 108dBμV	VHF: <3dB UHF: <2.5dB
MHW34G	VHF: 20–28dB, UHF: 34dB	1, 2 or combination, saddle and screw connection	1 x 105dBμV	VHF: <3dB UHF: <2.5dB

Requires 14VDC or 17VAC power supply.

Bulk packages now available of some Kingray lines.

DISTRIBUTION AMPLIFIERS

MULTIBAND MBJ SERIES AMPLIFIERS

Multiband amplifiers amplify and mix signals from several sources. Two versions, one 112/113dBμV out and the other 117dBμV out, to be used in small and medium networks. Metal housing, totally shielded, with plastic cover and F connectors. Packaging 1 pc.

- Separate amplification for VHF and UHF bands,
- All the adjustments are located under the cover to prevent unauthorised access,
- Switch mode power supply, high efficiency and low consumption,
- Remote power supply selectable on each input, 100mA max.



FRACARRO

	Input:	Input Band: (MHz)	Gain: (dB)	Output Level: (dBμV)
MBJ2320	2	VHF/UHF	+24dB	VHF: 109, UHF: 113
MBJ2332	3	B1, B3, B4 & B5	B1 & B3 +21dB, B4 +26dB, B5 +24dB	VHF: 109, UHF: 112
MBJ2332/32-36	3	B1, B3, B4 & B5	B1 & B3 +21dB, B4 +26dB, B5 +24dB	VHF: 109, UHF: 112
MBJ2356	5	B3, B4, B5 & UHF	B1 & FM: 20dB, B3 +19dB, B4 +22dB, B5 +22dB, UHF +22dB	VHF: 109, UHF: 112

Remote power 12V DC, 100mA total, available on any input. Mains voltage 220–240VAC. Gain adjustment 0–20dB on every input. F female Connectors

Amplifiers & Modulators

AMP SERIES AMPLIFIERS

AMP series broadband amplifiers share Fracarro's award winning MBX series housing design. Switch mode power supply reliability with concealed controls to reduce the likelihood of user interference. High Output Levels and Gain in fully shielded housings that incorporate F connectors. Proven performers with return path capabilities.



FRACARRO

AMP9762

Terrestrial line amplifier with return path. 1 input: +42dB over 47–862MHz. Gain and Slope controls -20dB constant 75. Output 120dBμV. Noise figure 8dB. Linearity ≤4dB. Return Path 5–30MHz passive or active. Mains powered.



FRACARRO

AMP9764

Amplifier for satellite with passive loop-through for terrestrial. 2 inputs: +40dB over 950–2,150MHz, -2dB 47–860MHz. Gain and Slope controls -20dB constant 75Ω. Output 125dBμV, noise figure 10dB. Mains powered.



FRACARRO

AMP9763

Ultra broadband amplifier with return path. 1 input: +40dB over 47–862 and 950–2,400MHz. Gain and Slope controls for Terrestrial and Satellite bands. Output 125dBμV Satellite noise figure 8dB Terrestrial noise figure 10dB Sat. Ret. Path 5–30MHz passive or active. Mains powered.

MBX SERIES AMPLIFIERS

MBX amplifiers feature high gain and output power levels in an Award winning housing design. Zamac housing with F connectors, switch mode power supplies and concealed controls.



FRACARRO

MBX5710

1 x input: +43dB UHF. Output level 119dBμV UHF and 116dBμV VHF. Noise figure: 6dB UHF and 4.5dB VHF.



FRACARRO

MBX5750

5 x inputs: UHF +43dB, B5 +43dB, B4 +43dB, B3 +38dB, , (B2 &) B1 +35dB. Mains powered. 5 x Gain controls. Noise figure: UHF 8.5dB, VHF 4.5dB. Separate VHF and UHF band amplification UHF 119dBμV, VHF 116dBμV output.



FRACARRO

MBX7741

4 x inputs: +40dB UHF, +40dB UHF, +40dB FM, +40dB B3 and B1. 4 x Gain controls. Noise figure 11dB. High 124dBμV output. Mains powered.



FRACARRO

MBX7750

5 x inputs: UHF +40dB, B5 +40dB, B4 +40dB, B3 +40dB, (B2 &) B1 +40dB. 5 x 75Ω Gain controls. Noise figure: 11dB UHF and VHF. High 124dBμV output. Mains powered.

Amplifiers & Modulators

SPLITTER AMPLIFIERS



Kingray

	SA162F	SA164F
Inputs:	1 x	1 x
Gain:	VHF +14dB, UHF fixed gain +16dB.	VHF +14dB, UHF fixed gain +16dB.
Split Loss:	-4dB split loss	-7dB split loss(Slope Eq.)
Outputs:	2 outputs, 100dBμV max	4 outputs, 100dBμV max
Noise Figure:	<3.5dB	<3.5dB
Power Supply:	Integrated mains supply	
Connection:	F Type, with adapter to convert to PAL	



Kingray

SA164R

Inputs:	1 x
Gain Adjust:	VHF 12–14dB, UHF slope adjustable 16dB
Outputs:	4 x Max. 100dBμV
Noise Figure:	>3.5dB



Kingray

SAM224

Inputs:	1 x
Gain Adjust:	VHF 12–14dB, UHF 16dB
Outputs:	4 x Max. 100dBμV
Noise Figure:	>3.5dB

Requires 14V DC power supply (PSK06).

KINGRAY DISTRIBUTION AMPLIFIERS



DW42

Kingray

DW32 2 inputs: VHF +28dB, UHF +32dB. Mixed or separate U/V inputs. Gain adjust VHF 26–28dB, UHF 32dB. 1 output, max. 112dBμV, return loss ≥10dB 47–862MHz, ≥14dB @5–30MHz, 1 x test point -30dB, F female connectors, nf ≤3.5dB type. PSK12 power supply included.

DW42 2 inputs: VHF +37dB, UHF +40dB. 3 x -20dB gain adj. B1, B3, UHF. Mixed or separate U/V inputs, selectable. 1 output, max. 118dBμV, nf ≤7dB type F female connectors. Shielded diecast housing. Requires PSK18S power supply (excluded).

DA43 1 input: 40–860 MHz +43dB amplifier. 1 output max 118dBμV, -30dB Test Point. -20dB midstage constant 75Ω gain control; 5, 10 or 15 dB slope eq. nf<6dB. F female connectors. Shielded diecast housing. Requires PSK18S power supply (excluded).

MASTHEAD DISTRIBUTION AMPLIFIERS

Following products with /F come with F connectors (e.g. MHW34F), /FS come with a fully shielded case as well as F connectors (e.g. MHW34FS).



Kingray

	Inputs:	Outputs:	Noise:
MDA20H	1 x VHF: ch. 174–470MHz, UHF: ch. 470–860MHz. Max. gain: 19dB	1 x 118dBμV	<1.6dB
MDA20L	1 x VHF ch. 44–470MHz, UHF: ch. 470–860MHz. Max. gain: 19dB	1 x 118dBμV	<1.6dB
MDA20U	1 x UHF: Max. gain: 19dB	1 x 118dBμV	<1.6dB

PSK06F power supply included.

Amplifiers & Modulators

ALCAD DISTRIBUTION AMPLIFIERS



Gain:	VHF: 14dB, UHF: 24dB
Gain Adjust:	VHF: 16dB, UHF: 12dB
Inputs:	1 x VHF incl FM & DAB+ & UHF
Outputs:	2 x (1x -14dB)
Output Level:	104dBμV Maximum
Connection Type:	F
Noise Figure:	<4.5dB VHF, <3.5dB UHF
Return Loss:	≥10dB

Integrated regulated mains supply.



Gain:	VHF: 35dB, UHF: 42dB, FM: 25dB
Gain Adjust:	VHF: 20dB, UHF: 16dB
Inputs:	3 x VHF incl. FM DAB+, UHF 1, UHF 2.
Outputs:	3 x 2 equal, 1 -30dB
Output Levels:	110dBμV Maximum x 2
Connection Type:	F
Noise Figure:	5dB
Return Loss:	≥13dB

Integrated regulated mains power supply.
24V DC @ up to 50mA available from UHF1 input.



Gain:	VHF: 24dB, UHF: 25dB
Gain Adjust:	VHF: 16dB, UHF: 12dB
Inputs:	1 x VHF incl FM & DAB+ & UHF
Outputs:	2 x equal
Output Level:	102dBμV Maximum x 2
Connection Type:	F
Noise Figure:	VHF: <4.5dB, UHF: <3dB
Return Loss:	≥10dB

Integrated regulated mains supply.

12V DC @ up to 50mA selectable at Input compatible with many mast amplifiers and preamplifiers.



Gain:	VHF: 33dB, UHF: 45dB
Gain Adjust:	VHF: 20dB, UHF: 16dB
Inputs:	2 x VHF incl. FM DAB+, UHF
Outputs:	2 x equal
Output Levels:	110dBμV Maximum x 2
Connection Type:	F
Noise Figure:	VHF: 4dB, UHF: 3dB
Return Loss:	≥10dB

Integrated regulated mains power supply.
24V DC @ up to 50mA available from UHF1 input.

Amplifiers & Modulators



Gain:	VHF B1, B3: 25dB, B4, B5: 34dB, UHF: 34dB
Gain Adjust:	VHF: 20dB, UHF: 16dB
Inputs:	5 x B1, B3 incl DAB+, B4, B5 & all UHF
Outputs:	1 x 114dBμV Maximum
Connection Type:	F
Noise Figure:	VHF <6.5dB, UHF <5.5dB
Return Loss:	≥10dB

Integrated regulated mains supply.
12V DC @ up to 50mA available from all 3 UHF inputs.



Gain:	VHF: +38dB
Gain Adjust:	VHF and UHF -20dB, 18dB slope controls
Inputs:	1 x +38dB
Output:	1 x 113dBμV Maximum
Connection Type:	F
Noise Figure:	<8.5dB
Return Loss:	≥10dB 47–862MHz, ≥14dB 5–30MHz
Return Path:	+10dB 5–30MHz active return path

In and out test points -30dB.



Bands:	B1, FM, B3, UHF1 and UHF2
Gain:	+40dB B1, FM and B3 +45dB UHF
Gain Adjust:	-20dB constant 75Ω @ each input
Inputs:	5 x +40dB B1, FM, B3, +45dB UHF1, UHF2
Output:	1 x 115dBμV Maximum
Connection Type:	F
Noise Figure:	<8dB
Return Loss:	≥10dB 47–862MHz, ≥14dB 5–30MHz

1 x test point -30dB.
24V DC@up to 60mA automatically from each input.



Bands:	VHF and UHF
Gain:	+47dB
Gain Adjust:	Gain control -20dB and 18dB slope
Inputs:	1 x 47dB
Outputs:	1 x Max. 120dBμV
Connection Type:	F
Noise Figure:	8.5dB
Return Loss:	≥10dB 47–862MHz, ≥14dB 5–30MHz

In and out test points -30dB.

Amplifiers & Modulators

SATELLITE DISTRIBUTION AMPLIFIERS



PayTV
Approved

Bands:	VHF/UHF and SAT IF
Gain Adjust:	+42dB SAT IF, -2dB VHF/UHF mix
Inputs:	SAT IF, VHF/UHF mix
Output:	1 x Max. 120dBμV
Connection Type:	F
Noise Figure:	<8dB
Return Loss:	>10dB

Flatness + or -3dB, + or -1.5dB over 36MHz.
13 or 17V 350mA LNB supplied, 22KHz generator.



PayTV
Approved

Bands:	Terrestrial and Satellite
Gain:	+41dB SAT, 31dB terrestrial
Gain Adjust:	-34dB, 47-862MHz, +34dB V&U, +4dB 5-30 Return Path TV-17 SAT-10dB
Inputs:	1 x , Slope TV-20 SAT-15dB, Fixed slope Eq. -2.5dB R.P, 7dB SAT. 1x test point -30dB
Output:	1 x Max. 120dBμV, 1 x test point -30dB
Connection Type:	F
Noise Figure:	<8dB
Return Loss:	≥14dB
Return Path:	≥10dB TV, ≥9dB SAT



Bands:	VHF/UHF
Gain:	+36dB slope
Gain Adjust:	-20dB, 18dB slope controls
Inputs:	1 x +36dB 47-422MHz VHF, 470-862 MHz UHF. 1x input split band gain and slope controls
Output:	1 x Max. 120dBμV, ≥14dB 5-30MHz
Connection Type:	F
Noise Figure:	<7dB
Return Loss:	≥10dB 47-862MHz, ≥15dB 5-30MHz

In and out test points -30dB.



AMP9603



1 input: +40/45dB 950-2150MHz, -18dB Gain
and 10dB Slope controls, 114dBμV output IM3
-35dB; +30dB 86-862MHz, -20dB Gain and 18dB
Slope controls constant 75Ω, -2dB 5-65MHz.
108dBμV output IM3 -60dB.

Amplifiers & Modulators

KINGRAY SATELLITE DISTRIBUTION AMPLIFIERS

Kingray

SAT29D



Gain: 29dB

Inputs: 2 x 950–2050MHz

Outputs: 2 x

Requires 18V DC remote power supply (PSK18S).
Diplexed output.

Dual input satellite distribution amplifier capable of powering both V and H LNBs simultaneously via an onboard regulator.

Kingray

SAT42D



Gain: 42dB

Inputs: 2 x 950–2050MHz

Outputs: 2 x

Requires 18V DC remote power supply (PSK18S).
Diplexed output.

Dual input satellite distribution amplifier capable of powering both V and H LNBs simultaneously via an onboard regulator.

POWER INJECTORS



PI-8AL

Injector only with LED, use with any Low Voltage power supply. PAL type connectors.



Kingray

PIK170

Bare ends with Belling Lee connectors 30V AC/DC.

PIK2000

F Type to DC Plug 30V AC/DC.

PIK2750

F type to bare ends 30V AC/DC.

Amplifiers & Modulators

POWER SUPPLIES FOR MAST AMPLIFIERS



PS5DCP

5V DC 600mA 3VA max, injector with green LED indicator, short circuit protected, PAL connectors.

PS12DCP

12V DC 250mA 3VA max, injector with green LED indicator, short circuit protected, PAL connectors.

PS14DCP

14V DC 215mA 3VA max, injector with green LED indicator, short circuit protected, PAL connectors.

PS24DCP

24V DC 125mA 3VA max, injector with green LED indicator, short circuit protected, PAL connectors.

PS12DCF

12V DC 250mA 3VA max, injector with green LED indicator, short circuit protected, F Female connectors.

PS14DCF

14V DC 215mA 3VA max, injector with green LED indicator, short circuit protected, F Female connectors.



PS17ACP

17.5V AC 80mA Linear Power Supply, injector with green LED indicator, short circuit protected, PAL connectors.

PS22ACP

22V AC 80mA Linear Power Supply, injector with green LED indicator, short circuit protected, PAL connectors.

PS22ACF

22V AC 100mA Linear Power Supply, injector with green LED indicator, short circuit protected, F Female connectors.

Our revised DC supply range features tiny Switch Mode Power Supplies, which from a wide range of AC input voltages deliver smooth and regulated DC to your mast amplifier. The small dimensions of these supplies opens a new era in supply size as they are around the same size as a mains plug and they meet the latest MEPS requirements to save electricity and money.



Kingray

PSK01

GME 9V DC 200mA supply with injector, short circuit protected, PAL Male to Female connectors.

PSK02

GME 22V AC 100mA supply with injector, short circuit protected, PAL Male to Female connectors.

PSK06

GME 14V DC 150mA supply with injector, short circuit protected, PAL Male to Female connectors.

PSK06F

GME 14V DC 150mA supply with injector, short circuit protected, F Female connectors.

PSK08

GME 17.5V AC 100mA supply with injector, short circuit protected, PAL Male to Female connectors.

PSK08F

GME 17.5V AC 100mA supply with injector, short circuit protected, F Female connectors.

PSK12F

GME 12V DC 500mA supply with injector, short circuit protected, F Female connectors.

PSK12S

GME 12V DC 500mA supply, fitted with 2.5mm DC plug.

PSK18F

GME 18V DC 500mA supply, Heavy Duty fitted with F type Female-Female RF injector.

PSK18KR

GME 18V DC 1700mA supply, Heavy Duty fitted with 5.5mm DC plug.

PSK18S

GME 18V DC 500mA supply, Heavy Duty with 5.5mm DC plug. Required for DW42, MD100 etc.

Amplifiers & Modulators

MODULATORS, MONO AUDIO



LM3878

Audio/Video double side band modulator.
UHF output channels.
RF output level 70+ dBμV + or – 5dB.

AV TO DIGITAL COFDM MODULATOR

FRACARRO

MOD-COFDM



NEW

Converts composite Analogue audio and video (PAL, NTSC or SECAM) from Video Cameras, Security Cameras, DVD players and set top boxes into digital terrestrial. Retains picture quality across small or large distribution networks.

High compatibility with Australian televisions. Excellent picture quality. (Please see page 127 for more details)

STEREO AUDIO

Now you can make any DVD, Camera or Video and Audio source into a TV channel, and mix it with your off air TV for distribution to every set on the antenna system.

Kingray



**Full
Stereo
Sound**

MD100VS

44–470MHz. Ch. AU 0–12+ requires 500mA PSK- 18S or 1700mA PSK18KR.

MD100US

470–860MHz. Ch. AU 20–75+ requires 500mA PSK-18S or 1700mA PSK18KR.

Double sideband Stereo modulator. Continuous frequency coverage in 250KHz frequency steps, PLL stable, with 63–103dBμV out. Video 1Vpp@75Ω; audio >.1V @10KΩ. Mount holes 170mm apart. Stand alone or GME Kingray rack mount option.

Kingray modulator packages available. (See page 130)



MD531



**Full
Stereo
Sound**

Frequency Range	47–862MHz
Channels	0..5A, S1..S10, 6..12, S11..S41, 21..75
Audio/Video input	2 x RCA Audio, 1 x RCA Video
TV output(RF)	F female
Extension input(RF)	F female
Video input level	1.0Vpp (75Ω)
Audio input level	0.2–2.0Vrms(>10KΩ)
Output level	84dBμV
Output level adjust	-15dB
Extension input(RF) loss	0.9dB
Carrier/Noise Ratio (C/N)	>58dB
Mains Voltage	240V~ 50/60Hz, 5VA

MD531 is a stereo TV Modulator with features that suit both professional and domestic applications. Connecting to existing equipment is simple through the RF Input. F type RF and RCA AV connectors round out MD531 connectivity. A wide range of Australian output frequencies between 45 and 860MHz including S channels can be easily selected. Output level can be reduced by up to -15dB where necessary or a serious distribution network of say 30 TVs directly connected. Onboard mains power supply included!

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Audio/Video Leads, Cable, Connectors & Hand Tools

HDMI ACCESSORIES

HDMI 3 way Switch



HDMISW1X3

3 input High Speed HDMI switch. Includes IR remote control, discreet IR code disk and Power Supply.

HDMI 5 way Switch



HDMISW1X5

5 way High Speed HDMI switch. With IR remote control and discreet IR codes. Power Supply included.

HDMI 2 way Splitter



HDMISP2

2 way High Speed HDMI splitter. 1 input to 2 outputs. Power Supply included.

HDMI 8 way Splitter



HDMISP8

8 way High Speed HDMI splitter. 1 input to 8 outputs. Power Supply included.

HDMI 8 way Splitter to CAT6/5E



HDMISP8C6

8 way High Speed HDMI splitter to CAT6/5E. 1 input to 8 outputs. Power Supply included.

Requires 8x HDMICAT6REC receivers.

HDMI CAT6/5e Transmitter/Receiver



HDMICAT6TX

Sends high resolution HDMI 30 to 40 metres over 1 data cable depending on cable quality.

HDMICAT6REC

CAT6/5E to HDMI receiver.

HDMI 4x2 Matrix Switch



HDMIMATRIX4X2

HDMI Full Matrix 4x2 High Speed HDMI switch. Any input to any output! Sends Foxtel, Digital TV, PS3 and your digital camera to a screen and a projector.

HDMI 4x4 Matrix Switch



HDMIMATRIX4X4

HDMI Full Matrix 4x4 High Speed switch. Any of 4 inputs to 4 outputs. Power Supply included.

Audio/Video Leads, Cable, Connectors & Hand Tools

AUDIO VIDEO SENDER



HVS580



The HVS580 Audio Video Sender with IR Remote Control Extender allows transmission of Audio and Video from your Pay TV, CD, DVD/Blu-ray Player, CCTV camera or almost any AV device wirelessly.

The HVS580 is compatible with Pay TV IR signals. Plug and play, sends AV in one direction over a 5.8GHz wireless link and provides a 434MHz return path for IR commands. IR mouse extension included.

- Allows transmission of audio and video from your Pay TV, CD, DVD/Blu-ray Player, CCTV camera or almost any AV device wirelessly.
- Compatible with Pay TV IR signals.
- Allows operation with your original remote control from another room through walls, over distances.
- Easy to install — ideal plug and play audio/video transmission and control solution.
- Sends AV in one direction over a 5.8GHz wireless link and provides a 434MHz return path for IR commands.
- Delivers clear audio and video up to a range of 100 metres based on clear terrain.
- Uses 5.8GHz to avoid interference from microwave ovens, wireless (WiFi) networks, Bluetooth or any lower frequency device.
- 8 x 5.8GHz channels selectable, to limit interference from other devices.
- Concealed high efficiency antennas — inside the receiver and transmitter.
- Infrared emitter extender with self adhesive pad — sticks to AV device IR sensor window.
- LED indicates IR transmission activity.
- Compact and sleek profile.
- Meets Low Interference Potential Devices (LIPD) class licence.

REMOTE CONTROL EXTENDERS



AR1817

Remote control extender compatible with Pay TV control signals. 433MHz, up to 100m range.



HIR434



The healing HIR434 IR Remote Control Extender allows operation of your Pay TV, CD, DVD/Blu-ray Player, CCTV Camera, Projectors or almost any AV device wirelessly from another room.

The HIR434 is compatible with Pay TV IR signals. Easy set up, wireless transmission passes Infra-Red signals through walls and over distances using 433.92MHz. IR mouse extension included.

- Operate your Pay TV, CD, DVD/Blu-ray Player, CCTV Camera, Projectors or almost any AV device wirelessly from another room.
- Compatible with Pay TV IR control signals.
- Allows you to use original remote control from another room.
- Simple to setup and easy to get working.
- Wireless transmission passes Infra-Red signals through walls and over distances using 434MHz.
- Delivers clear IR signals up to a range of 100 metres based on clear terrain.
- Concealed high efficiency antennas — inside the receiver and transmitter.
- Infrared emitter extender with self adhesive pad — sticks to AV device IR sensor window.
- LED indicates IR transmission activity.
- Weighted base optimises stability of vertical small footprint case.
- Meets Low Interference Potential Devices (LIPD) class licence.

Audio/Video Leads, Cable, Connectors & Hand Tools

Component to HDMI Adapter



HDMICOMP Component YPbPr and Audio to HDMI converter. Power Supply included.

HDMI Repeater



HDMIREP

Inline HDMI repeater. Line powered*. Tested @1080p between 2 x stock 25m cables up to 50m. *5VDC input allows use in series and with lossy HDMI leads.

HDMI Joiners



HDMIFF



HDMIMFRA

HDMIDVI HDMI to DVI adapter.

HDMIFF HDMI Female to Female joiner.

HDMIMFRA HDMI Male to Female flexible adapter.

SCART to RCA Adapters



SRCI01



SRCI02

SRCI01 SCART to RCA and SVHS adapter with In / Out switch.

SRCI02 SCART to RCA and SVHS adapter with In / Out switch. Nickel plated-silver.

TOSLink Connectors

OTJOIN



OTDIV



OTMADA



OTJOIN TOSLink jack to TOSLink jack adapter.

OTDIV Optical Divider 1 in 2 out or 2 in 1 out.

OTMADA TOSLink jack to mini plug adapter.

AUDIO VIDEO ACCESSORIES & SWITCHES



76BGS36 RCA AV switch. 3 inputs to 1 output, RCA L and R Audio and Video. Blister packed.



AYUV4RC The AYUV4RC allows you to connect up to 4 component sources including DVD, STB, Xbox 360, PS3 and more.
- IR Learning
- Remote or manual control



AV1100 SCART and RCA switch box.

Audio/Video Leads, Cable, Connectors & Hand Tools

CABLE & LEADS

HDMI CABLE

Budget HDMI Leads



High Speed v1.3b
30AWG

HDMI B1.5 1.5 Metre Budget male A to male A HDMI Lead

HDMI B1.8 1.8 Metre Budget male A to male A HDMI Lead

Elite HDMI Leads



High Speed with Ethernet v1.4
28 AWG

HDMI E0.5 0.5 Metre Elite, gold plated connectors, 2 tone.

HDMI E1 1 Metre Elite, gold plated connectors, 2 tone.

HDMI E2 2 Metre Elite, gold plated connectors, 2 tone.

HDMI E3 3 Metre Elite, gold plated connectors, 2 tone.

HDMI E5 5 Metre Elite, gold plated connectors, 2 tone.

NEW 500mm length helps linking products in a stack or a rack.

HDMI Horizontal/Vertical Flexi Connector



High Speed with Ethernet v1.4
28 AWG

HDMI H V1 1 Metre HDMI H/V flexi leads, gold plated.

HDMI H V2 2 Metre HDMI H/V flexi leads, gold plated.

HDMI H V3 3 Metre HDMI H/V flexi leads, gold plated.

HDMI H V5 5 Metre HDMI H/V flexi leads, gold plated.

Ideal for tight spaces, the flexi connectors minimize cable stress and help to conceal the lead.

Longer HDMI Leads



High Speed with Ethernet v1.4
24 AWG

HDMI I10 10 Metre tinned copper, gold plated connectors.

HDMI I15 15 Metre tinned copper, gold plated connectors.

HDMI I20 20 Metre Silver plated copper, gold pl. connectors.

HDMI I25 25 Metre Silver plated copper, gold pl. connectors.

So you can be sure our HDMI cables will provide the optimal bandwidth link your customers AV devices demand, our supplier is a full HDMI Adopter. With the exception of our High Speed budget cables, all our cables are High Speed with Ethernet, ready for 3D and more.

Thoroughly tested before packing, our cables provide HDMI connections you can rely on. Each cable is sealed in a simple plastic bag and labelled, the savings in packaging and shipping are reflected in our prices. We are even ready to help you test your HDMI cables, when you are.

Premium HDMI leads



High Speed with Ethernet v1.4
28AWG

HDMI P1 1 Metre Premium with gold plated flat conn.

HDMI P2 2 Metre Premium with gold plated flat conn.

HDMI P3 3 Metre Premium with gold plated flat conn.

HDMI P5 5 Metre Premium with gold plated flat conn.

HDMI P8 8 Metre Premium with gold diecast conn. 24AWG

HDMI P10 10 Metre Premium with gold diecast conn. 24AWG

HDMI male Flexi to female



High Speed with Ethernet v1.4
28AWG

That little bit of extra cable length with an easy to conceal Flexi connector.

HDMI M F0.5 black cable and connectors gold plated.

HDMI type C to type A



High Speed with Ethernet v1.4
28AWG

HDMI C A3 HDMI cable with type C Mini to type A Standard HDMI connectors, 3metres long, gold plated connectors

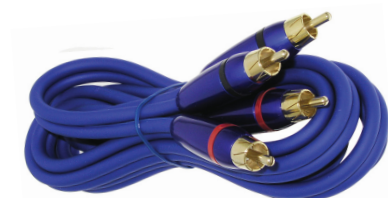
Audio/Video Leads, Cable, Connectors & Hand Tools

PREMIUM GOLD PLATED RCA LEADS



AR5201	Premium 1m 2 x RCA to 2 x RCA flexible cable, nylon sleeve.
AR5202	Premium 2m 2 x RCA to 2 x RCA flexible cable, nylon sleeve
AR5203	Premium 3m 2 x RCA to 2 x RCA flexible cable, nylon sleeve
AR5205	Premium 5m 2 x RCA to 2 x RCA flexible cable, nylon sleeve
AR5301	Premium 1m 3 x RCA to 3 x RCA flexible cable, nylon sleeve
AR5302	Premium 2m 3 x RCA to 3 x RCA flexible cable, nylon sleeve
AR5303	Premium 3m 3 x RCA to 3 x RCA flexible cable, nylon sleeve
AR5305	Premium 5m 3 x RCA to 3 x RCA flexible cable, nylon sleeve

Blue AV cable with quality RCA plugs



AR4209	.9m High Quality 2 x RCA Male to 2 x RCA Male, Blue 6mmØ x 2.
AR4218	1.8m High Quality 2 x RCA Male to 2 x RCA Male, Blue 6mmØ x 2.
AR4230	3m High Quality 2 x RCA Male to 2 x RCA Male, Blue 6mmØ x 2.



AR4309	.9m 3 x RCA Male to 3 x RCA Male, Blue 6mmØ x 3.
AR4318	1.8m 3 x RCA Male to 3 x RCA Male, Blue 6mmØ x 3.
AR4330	3m 3 x RCA Male to 3 x RCA Male, Blue 6mmØ x 3.
AR4350	5m 3 x RCA Male to 3 x RCA Male, Blue 6mmØ x 3.
AR4310	10m 3 x RCA Male to 3 x RCA Male, Blue 6mmØ x 3.
AR4315	15m 3 x RCA Male to 3 x RCA Male, Blue 6mmØ x 3.

Red Blue Green RCA leads



AR3309	.9m 3 x RCA Male to 3 x RCA Male, RGB colours 6mmØ x 3.
AR3318	1.8m 3 x RCA Male to 3 x RCA Male, RGB colours 6mmØ x 3.
AR3330	3m 3 x RCA Male to 3 x RCA Male, RGB colours 6mmØ x 3.
AR3350	5m 3 x RCA Male to 3 x RCA Male, RGB colours 6mmØ x 3.

PCCAT6 Series Patch Cords



PCCAT6.5	.5m CAT6 Patch Leads.
PCCAT61	1m CAT6 Patch Leads.
PCCAT62	2m CAT6 Patch Leads.
PCCAT63	3m CAT6 Patch Leads.
PCCAT65	5m CAT6 Patch Leads.

Audio/Video Leads, Cable, Connectors & Hand Tools

GENERAL AUDIO VIDEO LEADS



AR1001 1.8m 1 x RCA Male to 1 x RCA Male.



AR1202 1.8m piggy back 2 x RCA Male to 2 x RCA Male.



AR1203 1.8m 2 x RCA Male to 2 x RCA Male.



AR1204 1.8m 2 x RCA Male to 2 x RCA Female.



AR1205 1.8m 2 x RCA Male to 1 x 3.5mm stereo Male.



AR1206 1.8m 3.5mm Stereo Male to 3.5mm Stereo Male.



AR1207 1.8m 3.5mm Mono Male to 2 x RCA Male.



AR1208 1.8m 1 x RCA Male to 2 x RCA Male.



AR1209 1.8m 2 x RCA Female to 2 x RCA Female.



AR1210 10m 2 x RCA Male to 2 x RCA Male.



AR1230 3m 2 x RCA Male to 2 x RCA Male.



AR1250 5m 2 x RCA Male to 2 x RCA Male.



AR1307 1.8m 3 x RCA Male to 3 x RCA Male.



AR1330 3m 3 x RCA Male to 3 x RCA Male.



AR1350 5m 3 x RCA Male to 3 x RCA Male.



AR1310 10m 3 x RCA Male to 3 x RCA Male.

Audio/Video Leads, Cable, Connectors & Hand Tools



AR1403 1.8m Gold Plated 2 x RCA Male to 2 x RCA Male.



AR1407 1.8m 4 x RCA Male to 4 x RCA Male.

5RCA To 5RCA Leads



AR1518 1.8m colour coded component and stereo audio cable.

AR1530 3m colour coded component and stereo audio cable.

AR1550 5m colour coded component and stereo audio cable.

S-Video Leads



VS1084



VS1094

VS1084 1.8m S-VHS Video lead, 4 pin MINI DIN Male to Male.

VS1094 1.5m S-VHS Video lead, 4 pin MINI DIN Male to Male.

SCART Leads



VS2012



VS2002



VS2018



VS2020



VS2KIT

VS2002 1.5m SCART Male to SCART Male, 21 pins.

VS2010 SCART divider. Male plug to 2 x Female sockets. All 21 pins interconnect.

VS2012 High quality 15m SCART Male to SCART Male, all 21 pins connect.

VS2015 SCART divider. Male plug to 5 x Female sockets in parallel. All 21 pins interconnect.

VS2018 1.5m SCART to 6 RCA, A&V Stereo VCR etc.

VS2020 1.5m SCART to 4 RCA plugs. Stereo Audio.

VS2021 1.5m SCART to 4 RCA plugs. Mono VCR Audio and Video to TV etc.

VS2KIT Video Survival dubbing kit. Many Audio Video connections possible, in zip top plastic satchel with hang cell.

TOSLink Optical Fibre Leads Optic Leads



OTQ009 Premium 0.9m TOSLink male to male Fibre Optic lead.

OTQ018 Premium 1.8m TOSLink male to male Fibre Optic lead.

OTQ030 Premium 3m TOSLink male to male Fibre Optic lead.

The perfect Digital Audio link, that excludes the possibility of a ground loop.

Cloth bound TOSLink blister packed leads with gold connectors.



OT1009 0.9m TOSLink male to male Fibre Optic Lead.

OT1018 1.8m TOSLink male to male Fibre Optic Lead.

OT1030 3m TOSLink male to male Fibre Optic Lead.

OT1050 5m TOSLink male to male Fibre Optic Lead.

OT1100 10m TOSLink male to male Fibre Optic Lead.

OT1150 15m TOSLink male to male Fibre Optic Lead.

OT1200 20m TOSLink male to male Fibre Optic Lead.



OT1018

Flexible rubber coating. Supplied in clear plastic bag.

Audio/Video Leads, Cable, Connectors & Hand Tools

TELEVISION FLYLEADS

Premium Flyleads



Flexible stranded centre wire, full copper braiding and carefully fitted quality black chrome shielded plugs. Premium Flyleads include Ferrite Suppressor at one end of the cable assists reducing impulse noise.

FLP1MM	Premium 1m PAL Male to Male.
FLP2MM	Premium 2m PAL Male to Male.
FLP3MM	Premium 3m PAL Male to Male.
FLP5MM	Premium 5m PAL Male to Male.
FLP2MF	Premium 2m PAL Male to F Male.
FLP3MF	Premium 3m PAL Male to F Male.
FLP5MF	Premium 5m PAL Male to F Male.

QuadShield Flyleads, Fully Shielded Plugs



FL18MMSBQUAD

FL10FMSBQUAD



FL18MMSWQUAD



FL18MFSBQUAD

FL18MMSBQUAD	1.8m PAL Male to Male, straight Black, Quad.
FL18MMSWQUAD	1.8m PAL Male to Male, straight White, Quad.
FL18MFSBQUAD	1.8m PAL Male to Female, straight Black, Quad.
FL18FMSWQUAD	1.8m PAL Male to F Male, straight White, Quad.
FL10FMSBQUAD	10m F Male to PAL Male, straight Black, Quad.
FL10FFSBQUAD	10m F Male to F Male, straight Black, Quad.

RG6 QuadShield cable with fully screened connectors that optimize shielding immunity. Unique two tone plug moulding.

Quad Flylead For LED/LCD/Plasma Fully Shielded Plugs



FL0.5MMRRBQUAD

A short .5m Quadshield lead with 2 x fully shielded right angle connectors under a unique two tone protective moulding.

Flyleads with Ferrite Suppressors



FLD2MFSW

FLD2MMSB	2m PAL Male to Male, shielded Black. With Ferrite suppressors.
FLD2MMSW	2m PAL Male to Male, shielded White. With Ferrite suppressors.

Traditional Flyleads



FL10MMRW-FL50MMRW



FL15MFSB

FL15MMSB	1.5m PAL Male to Male, straight plugs Black.
FL15MMSW	1.5m PAL Male to Male, straight plugs White.
FL18MMRW	1.8m PAL Male to Male, straight plug to right angle plug White.
FL30MMRW	3m PAL Male to Male, straight plug to right angle plug White.
FL50MMRW	5m PAL Male to Male, straight plug to right angle plug White.
FL10MMRW	10m PAL Male to Male, straight plug to right angle plug White.
FL15MFSB	1.5m PAL Male to Female, straight Black.
FL15MFSW	1.5m PAL Male to Female, straight White.

Audio/Video Leads, Cable, Connectors & Hand Tools

COAXIAL CALBE

RG59 Coaxial Cable



RG59/30B	RG59 DualShield 30m coil, Black.
RG59/100B	RG59 DualShield 100m plastic spool, Black.
RG59/305B	RG59 DualShield 305m Reel in a box, Black.
RG59/AV3	RG59 100m AV RGB cable.

.81mm Copper Clad Steel centre, Foam P.E. Dielectric, NON-bonded Aluminium Foil, 37% braid and Jacket.

Tech Tip:

Need coax for longer baseband Video and Audio runs? RG6 and RG59 TV coax does a surprising job. Crimp and Compression RCA and BNC connectors finish the job nicely

RG6 Dual Shield Coaxial Cable



RG6/30B	RG6 DualShield 30m coil, Black.
RG6/100B	RG6 DualShield 100m plastic spool, Black.
RG6/100W	RG6 DualShield 100m plastic spool, White.
RG6/305B	RG6 DualShield 305m Reel in a box, Black.

1.02mm Copper Clad Steel centre, Foam P.E. Dielectric, NON-bonded Aluminium Foil, 40% Braid and Jacket.

RG6 Quad Shield Coaxial Cable



RG6Q/30B	RG6 QuadShield 30m coil, Black.
RG6Q/100B	RG6 QuadShield on 100m spool, Black.
RG6Q/305B	RG6 QuadShield 305m Reel in a box, Black.
RG6Q/305FA	RG6 QuadShield 305m drum, Black, Foxtel Approved.
RG6QF/305B	RG6 QuadShield Flooded 305m drum, Black.
RG6QM/305B	RG6 Quad Messenger 305m, Black.
RG6Q/150BSIAM	RG6 QuadShield 150m drum, Siamese, Black.
RG6Q/305B/SPOOL	RG6 QuadShield 305m drum, Black.
RG6QLSZH/305B	RG6 QuadShield 305m, Low Smoke Zero Halogen, Black

1.02mm CCS centre, Foam P.E. Dielectric, bonded Aluminium Foil, 60% braid, Foil, 40% braid and Jacket.

RG11 Quad Shield Coaxial Cable



RG11/BELDEN	RG11 DualShield 305m drum, Belden Brand.
RG11F/BELDEN	RG11 DualShield Flooded 305m drum, Belden Brand.
RG11Q/305FA	RG11 QuadShield 305m drum, Black, PayTV Approved.
RG11Q/305B	RG11 QuadShield 305m drum, Black.
RG11Q/BELDEN	RG11 QuadShield 305m drum, Belden Brand, Black.
RG11Q/TFC	RG11 QuadShield 305m drum, TFC Brand.
RG11QF/305B	RG11 QuadShield Flooded 305m drum, Black.
RG11QF/305FA	RG11 QuadShield Flooded 305m drum, Foxtel Approved.
RG11QF/BELDEN	RG11 QuadShield Flooded 305m drum, Belden Brand.

1.63mm CCS centre, Foam P.E. Dielectric, bonded Aluminium Foil, 60% braid, Foil, 40% braid and Jacket.

Tech Tip:

Flooding compound protects against moisture ingress by 'self healing' small areas of jacket damage.

Audio/Video Leads, Cable, Connectors & Hand Tools

300 Ohm Flat Ribbon Cable



TVR300

Ribbon Cable Copper 7x.12mm x2, Black jacket 2x9.5mm.

TV antenna feeder wire on 100m plastic spools. Use with BT1 set balun for PAL type 75Ω set connection.

Audio/Video Cable



AVC3356

All copper Siamese Video and Stereo Audio cable, Blue jacket. AVC3356 1x6mm Video and 2x3.5mm Audio coaxes 100m, T138.

Speaker Cable



SPK-2144

SPK-2588

SPK-4176

SPK-2144 Speaker Cable, 0.12mmx72x2, 100m.

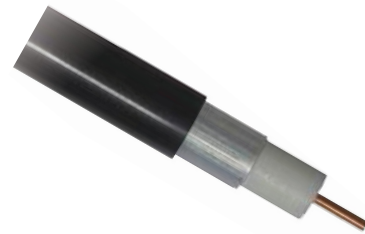
SPK-2224 Speaker Cable, 0.12mmx7x16x2.

SPK-2588 Speaker Cable, 0.12mmx42x7x2.

SPK-2924 Speaker Cable, 0.12mmx66x7x2 Core.

SPK-4176 Speaker Cable, 0.12mmx88x4, 100m.

Hardline Cable



JCASS-500-P3 1/2 inch flooded hardline cable.

CATV Accessories listed in MATV section of this catalogue.

Cable Roller



CABRL32

32mm cable drum roller. Dispense cable from drums up to 400mm wide and 650mm in diameter, or several drums at once. Adjustable drum guides, stable on any flat surface.

NETWORK CALBE



CAT5e/305 Cat5e network cable, Reel in a box 305m.

CAT6/305 Cat6 network cable, Reel in a box 305m.

Audio/Video Leads, Cable, Connectors & Hand Tools

ADAPTERS AND CONNECTORS

AUDIO ADAPTERS



AA2501 2.5mm Male MONO to 2.5mm Female STEREO.



AA2502 2.5mm Male STEREO to 2.5mm Female MONO.



AA2503 2.5mm Male MONO to 3.5mm Female MONO.



AA2504 2.5mm Male STEREO to 3.5mm Female STEREO.



AA3501 3.5mm Male MONO to 3.5mm Female STEREO.



AA3502 3.5mm Male STEREO to 3.5mm Female MONO.



AA3503 3.5mm Male MONO to RCA Female.



AA3504 3.5mm Male STEREO to RCA Female.



AA3505 3.5mm Male MONO to 6.35mm Female MONO.



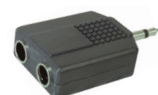
AA3506 3.5mm Male STEREO to 6.35mm Female STEREO.



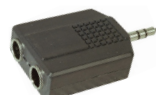
AA3507 3.5mm Male MONO to 2 x 3.5mm Female MONO.



AA3508 3.5mm Male STEREO to 2 x 3.5mm Female STEREO.



AA3509 3.5mm Male MONO to 2 x 6.35mm Female MONO.



AA3510 3.5mm Male STEREO to 2 x 6.35mm Female STEREO.



AA3511 3.5mm Male MONO to 2 x RCA Female.



AA3512 3.5mm Male STEREO to 2 x RCA Female.



AA6301 6.35mm Male MONO to 3.5mm Female MONO.



AA6302 6.35mm Male STEREO to 3.5mm Female STEREO.



AA6303 6.35mm Male MONO to 6.35mm Female STEREO.



AA6304 6.35mm Male STEREO to 6.35mm Female MONO.



AA6305 6.35mm Male MONO to RCA Female.



AA6306 6.35mm Male STEREO to RCA Female.



AA6307 6.35mm Male MONO to 2 x 3.5mm Female MONO.



AA6308 6.35mm Male STEREO to 2 x 3.5mm Female STEREO.



AA6309 6.35mm Male MONO to 2 x 6.35mm Male MONO.



AA6310 6.35mm Male STEREO to 2 x 6.35mm Male STEREO.

Audio/Video Leads, Cable Connectors & Hand Tools



AA6312 6.35mm Male STEREO to 2 x RCA Female.



AP6301 Phono Plug Male MONO 6.5mmØ, solder type.



AP6302 Phono Plug Male STEREO 6.5mmØ, solder type.



AP6303 Phono Plug Male MONO 6.5mmØ, solder type. Gold plated.



AP6304 Phono Plug Male STEREO 6.5mmØ, solder type. Gold plated.

2 Pin DIN Speaker Connectors



CDIN2M



CDIN2F



CDIN2F

CDIN2M Male 2 pin DIN. Screw terminals with screw on cover.

CDIN2F Female 2 pin DIN. Screw terminals with screw on cover.

CSV4 Male 4 pin mini DIN. Solder type for S-VHS etc. Clamshell inner surrounds connector, outer sleeve holds securely.

XLR Adapters



CXLRFL



CXLRML



CXLRFP



CXLRFP

CXLRFL Female XLR Line 3 pin solder type.

CXLRFP Female XLR Panel Mount 3 pin solder.

CXLRML Male XLR Line 3 pin solder type.

CXLRMP Male XLR Panel Mount 3 pin solder.

*Audio, DIN and XLR adapters are ONLY available from Seaford Head Office.

RCA ADAPTERS & CONNECTORS



AARC01 1 x RCA Male to 2 x RCA Female.



AARC02 1 x RCA Female to 2 RCA Female



AARC03 2 x RCA Female to 2 RCA Female.



AARC04 1 x RCA Female to 1 x RCA Female.



AARC05 1 x RCA Male to 2 x 3.5mm Female MONO.



AARC06 1 x RCA Male to 2 x 6.35mm Female MONO.



AARC08 2 to 2 x RCA Female with 1 to 1 x S-VHS 4 pin MiniDin.



AARC09 3 to 3 x RCA Female.

Audio/Video Leads, Cable, Connectors & Hand Tools



AARC10 RCA plug to S-Video Adapter, White.



RCAF01R RCA Jack solder type, Red.



RCAF01B RCA Jack solder type, Black.



RCAF02R RCA Jack shielded Gold Red.



RCAF02B RCA Jack shielded Gold Black.



RCAM01R RCA plug solder Red.



RCAM01B RCA plug solder Black.



RCAM01Y RCA plug solder Yellow.



RCAM02 RCA plug, shielded, solder type Gold Plated, Black or Red stripe.



RCAM03 RCA plug, shielded, solder type Gold Plated, Blue cap, Black or Red stripe.



RCAMC59 RG59 RCA compression connector, crimp RG59 9.5mmØ, includes coloured bands.



RCAMC6 RG6 RCA compression connector, crimp RG6 9.5mmØ, includes coloured bands.



RCAM59 RCA Male crimp RG59.



RCAM6 RCA Male crimp RG6.

BNC ADAPTERS



BA7004 BNC Male to F Male.



BA7005 BNC Male to F Female.



BA7008 BNC Male to PAL Male.



BA7009 BNC Male to PAL Female.



BA7011 BNC Male to RCA Female.



BA7016 BNC RG59 compression.



BA7017 BNC RG6 compression.



BA7022 BNC Male to 2 x BNC Female.



BA7024 BNC Female to PAL Male.



BA7025 BNC Female to PAL Female.



BC7003 BNC Male screw and clamp.



BC7007B BNC Male twist on RG59 with captive pin.

Audio/Video Leads, Cable Connectors & Hand Tools



BC7009B BNC Male hex crimp RG59.



BC7009C BNC Male hex crimp RG6.



BC7014 BNC Female panel mount, solder type.



BC7015 BNC Female panel mount, solder type.

TERMINATORS



FC7014 F connector 75Ω terminator.



AIDCBT F Connector 75Ω DC blocking terminator, 5-3000MHz.



TE75PAL PAL Male terminator.



TS2012 Secure, tamper proof F Male 75Ω terminator.

MISC. ADAPTERS



EC7001 PAL Male crimp RG59 Universal 11mmØ.



EC7002 PAL Female crimp RG59 Universal 11mmØ.



EC7003 PAL Male screw and clamp.



EC7004 PAL Female screw and clamp.



EC7005 PAL Male recessed phillips screw.



EC7006 PAL Female recessed screw.



EC7007 PAL Male right angle, fully shielded.



EC7008 PAL Female right angle, fully shielded.



EC7009 PAL Male crimp RG6 Universal 11mmØ.



EC7010 PAL Female crimp RG6 Universal 11mmØ.



EC7011 PAL Male to PAL Male. Also available in all metal (EC7011M).



EC7012 PAL Female to PAL Female. Also available in all metal (EC7012M).



EC7013 PAL Male to PAL Female.



EC7014 PAL Male right angle to PAL Female.

Audio/Video Leads, Cable, Connectors & Hand Tools



EC7015 PAL Male twist on RG6 6.5mmØ.



EC7016 PAL Male to F Female.



EC7017 PAL Male to RCA Female.



EC7018 PAL Female to RCA Female.



EC7019 RCA Male to PAL Female.



EC7020 PAL Female to 3.5mm MONO, Male.



EC7022 PAL Female Panel mount, crimp and solder type.



EC7023 F Female to PAL Male right angle.



EC7024 PAL Female Panel mount, solder type.



EC7025 PAL Female to Female panel mount adapter.



EC7026 PAL Male RG6Quad compression.



EC7027 PAL Female RG6Quad compression.



FA7001 F Female to F Female joiner.



FA7001N Optional lock nut for FA7001.



FA7002 F Female to F Female tested to 3GHz.



FA7004 F Male to F Male thread.



FA7005 F Male Quick to F Male Quick adapter.



FA7013 F Female to RCA Male adapter.



FA7014 F Male to RCA Female adapter.



FA7015 Adaptor F Female to RCA Female.



FA7016 F Male Quick to RCA Female adapter.



FA7017 F Male to PAL Female adapter.



FA7018 F Male to PAL Male adapter.



FA7019 F Female to PAL Female.



FA7022 F Male to F Female right angle.



FA7023 F Male quick fit to F Female right angle.

Audio/Video Leads, Cable Connectors & Hand Tools



FA7024 F Male quick fit to F Female.



FA7025 F Male to F Female right angle 3GHz.



FA7026 F Female to Quick F Male 3GHz.

F CONNECTORS



FC7001B F connector RG59 with separate crimp ring.



FC7001C F connector RG6 with separate crimp ring.



FC7002B F connector hex crimp RG59 Universal 11mmØ.



FC7002C F connector hex crimp RG6 Universal 11mmØ.



FC7003C F connector RG6 budget connector.



FC7004B F connector O ring and silicone grease weather seal for RG59 9.5mmØ.



FC7004C F connector O ring and silicone grease weather seal for RG6 pre-crimp 9.5mmØ.



FC7005 F connector RG11 captive reducing pin 13.5mmØ.



FC7005L F connector RG11 loose reducing pin 13.5mmØ.



FC7006B F twist on RG59 cable entry 5.5mmØ.



FC7006C F twist on RG6 cable entry 6.5mmØ.



FC7006D F twist on RG6Quad cable entry 7.00mmØ.



FC7007 F connector compression RG11 foxtel approved.



FC7008C Universal push on F connector for RG6 dual and quad.



FC7009B F connector fast twist RG59 cable entry 5.25mmØ.



FC7009C F connector fast twist RG6 cable entry 6.25mmØ.



FC7010 F Female RG59 crimp.



FC7011 F connector Female RG59 Universal 11mmØ.



FC7012 F connector Female RG6 Universal 11mmØ.



FC7013C F connector compression RG6 universal, dual o ring, unibody, 3GHz.

Audio/Video Leads, Cable, Connectors & Hand Tools



FC7016 RG11 low profile F crimp connector.



FC7017 F connector compression RG6Q cable entry 8mmØ.



FC7018 F connector compression RG6 dual.



FC7019B F connector conical crimp RG59.



FC7019C F connector conical crimp RG6.



FC7022 F connector compression RG6Q cable (Foxtel approved).



FC7023 F connector compression RG11Q cable (Foxtel approved).



FC7024 F connector bulk head with nut and washer. Solder type.



FC7025 F connector PCB mount. F Female.



FCBOOT Weatherproof F connector boot.



FCGB1 F connector grounding block.

MISC. CONNECTORS



CEF8 Cable Entry Flange 8mmØ cable entry for 10-12mmØ hole, 31mmØ.



CJ59H Coax Joiner crimp RG59 9.5mmØ.



CJ6H Coax Joiner crimp RG6 Universal.



CJ75SC Coax Joiner Screw and clamp.



NC7015 N type 50Ω Female panel mount.



TC7001 TNC Male RG58 Gold Plated pin.



TC7002 TNC Male fast RG58 Gold Plated captive pin.



UC7002A UHF/PL259 type, Male solder, heat resistant, cable entry 5.4mmØ.

RJ Plugs



RJ126P6C



RJ458P8C



RJ458P8CSLD

RJ126P6C 6 position modular solid cable.

RJ458P8C 8 position modular plug for solid cable.

RJ458P8CSLD 8 position modular plug for stranded cable.

Audio/Video Leads, Cable, Connectors & Hand Tools

CABLE INSTALLATION

CABLE INSTALLATION AIDS

Fibre glass Rod

RT3	Fibre glass 3 Metre x 4.75mm rod, cable installation aid.
RT6	Fibre glass 6 Metre x 4.75mm rod, cable installation aid.

PVC Tape



PVCBK	20m x 18mm x .18mm Plastic Tape.
NITTO11	Self Fusing or Amalgamating Tape. 10m x 19mm x .5mm.



C6RB



C7RB

C6RB	100x6mm cable clip. 6mm round black with larger nail, RG59 and RG6 Dual.
C7RB	100x7mm cable clip. 7mm round black with larger nail, RG6Q.



C7S1B



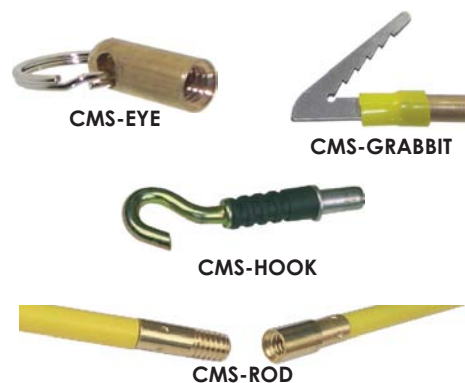
C7S2B

C7S1B	Cable clip 7mm screw for single cable.
C7S2B	Cable clip 7mm screw for double cable.

MAGICSTRIP

Push the magic strip up the wall cavity and feed your cable through the wall by pulling the magic strip through the installation hole. Bright yellow colour easy to locate. 3.6m long x 15mm x 4mm. Store in side of extension ladder or conduit to keep flat.

CMS Rods & Accessories



CMS-EYE	Brass eye screws onto Male CMS-ROD.
CMS-GRABBIT HOOK	Self directional hook for CMS-ROD.
CMS-HOOK	Hook screws onto Male CMS-ROD.
CMS-ROD	Easy to carry cabling aid. 1.5m fibre glass rods threaded to allow linkage end to end.

CABLETIDY



Neatly and easily binds bundles of cables up to 16mmØ together. Each Cable Tidy Kit includes a 3m length of FlexiCord and an Easy Clip applicator, which makes installation as simple as doing up a zip. Colour carton includes clear instructions and before and after pictures.

Audio/Video Leads, Cable, Connectors & Hand Tools

CABLE MANAGEMENT

Cable Stapler



JY667

Cable Tacker for up to 7mmØ round and 10mm wide flat cables. Patented staple shape suits round or flat cable types. 2 staple sizes 1407R for RG6 and 1405R for RG59 etc. 100 White x 1407R staples included with each tool. Blister packed.

Cable Staples



1405RB

200 x blister Black cable staples. For 4 to 6mmØ round and 2.5 to 4mm high by up to 8mm wide flat cables.

1405RW

200 x blister White cable staples. For 4 to 6mmØ round and 2.5 to 4mm high by up to 8mm wide flat cables.

1407RB

200 x blister Black cable staples. For 6 to 8mmØ round and 4.5 to 6.3mm high by up to 10mm wide flat cables.

1407RW

200 x blister White cable staples. For 6 to 8mmØ round and 4.5 to 6.3mm high by up to 10mm wide flat cables.

Cable Ties



CT100

100mm x 2.5mm black, bag of 100.

CT190

190mm x 4.8mm black, bag of 100.

CT300

280mm x 4.8mm black, bag of 100.

Tech Tip:

Don't overtighten on coaxial cable as cable ties indent coax causing reflections!

Cable Tie Puller and Cutter



HT218

Tighten cable ties and cut off excess in one easy action. Predetermined cut off pressure is adjustable. Fast and repeatable, makes the neatest of wiring looms.

CABLE TESTERS



CLT2

Cable line tracer. LED and buzzer to identify cables, F connectors.

Audio/Video Leads, Cable, Connectors & Hand Tools

Wire Tracker



WIRETRACKER

Locates wires by a distinctive tone. Generator and sensitive tracer included with a range of accessories and carrying case.

- Easily trace and identify coaxial / telephone / LAN or any metal cable.
- Test LAN and telephone cable condition, wire by wire.
- Bright LED light on probe assists your work in dark corners.

HDMI Cable Tester



HDMITESTER

Check your HDMI cables for continuity, crossed pairs and open wires in 2 seconds.

Sweeps each conductor in a HDMI cable and gives an almost instant response showing pass, open, cross or short on a wire by wire basis. Separate receiver (included) enables you to check even installed cables.

HAND TOOLS

CABLE PREP TOOLS



AS2010

Round cable stripper. Blades at both ends, spring loaded with locking mechanism. Rotate to cut insulation and pull to strip.



AS3006

Preset 2 blade stripper for RG6 and RG59. Bright yellow colour makes it harder to lose.



AS3106

Popular 2 blade rotary stripping tool with rollers and scrap ejectors. Suits RG6, RG59 or any cable between 4.9 and 7.5mmØ. Replacement blades also available (AS8106).



AS3811

3 blade stripper for RG11, RG213 or any cable between 4.9mm to 11mmØ. Solid metal construction promises years of use. Includes rollers and scrap ejectors. Hex Key adjustable. Hex Key and Spare Blades included. 122mm long. Blister Packed. Replacement blades also available (AS8811).

Audio/Video Leads, Cable, Connectors & Hand Tools



HT501

Universal cable stripper for round cables up to 9.5mmØ, multi conductor round and flat cables.



HLHT106

.500 Hardline cable coring and stripping tool.

CRIMPING TOOLS



DL806H

Hexagon crimp tool Heavy Duty, 9.12mm/.360", 8.2mm/.324". Suits 11mmØ and 9.5mmØ RG6 and RG59 connectors.



DL806J

Hexagon crimp tool Heavy Duty, 12.0mm/.472", 9.18mm/.361". Suits 11mmØ RG6, RG59 and 13.5mmØ RG11 connectors.



HT106A

Hexagon crimp tool Heavy Duty, 6.48mm/.255", .4mm/.213", and 1.72mm/.068". Suits BNC connector etc. that require centre pin crimp.

COMPRESSION TOOLS



DL518

3 in 1 compression tool, includes all RG59 and RG6 converters, plastic ergonomic grips.



DL807

Adjustable RG6 & RG59 linear compression tool, includes converters, fully adjustable. 19cm long.



HT807RG611

Adjustable RG11 & RG6 linear compression tool, includes converters, fully adjustable.



DL808

Linear compression tool, Heavy Duty. Adjustable to suit almost any RG11, RG6 or RG59 compression type connector. 17cm long.



HT507

Radial compression tool, 23cm long. High RF quality thanks to cone shape. Simple to use with easy latch mechanism. Suits RG6 and RG59 radial / conical connectors.

Audio/Video Leads, Cable, Connectors & Hand Tools

CABLE CUTTERS



DL501

Cable cutter, spring loaded with insulated grip handles. Cuts steel centre coax OK.



HT109

Mini Cutter, 13cm long. Insulated handles, spring opening, great in tight spaces with small cables.



SA504B

5" side cutter pliers, like HT109.

HT109

SA503B

SA504B

Mini Long Nose Pliers, 14cm long. Insulated handles, spring opening, serrated jaws hold on tight.

F CONNECTOR TOOLS



TS1949

Tamper proof F connector cover fitting tool. Makes connector access very difficult without TS1949 tool.



HT2206F

Access F connectors in tight areas. Also assists fitting F connectors to cable.



HT224



HT224A



HT224D

HT224A

T-Tool, for F connector.

HT224D

3 in 1 tool. One end to enlarge space between shield and insulation for RG59 and other end for RG6. The other end provides substantial grip and leverage for fitting F connectors. Comfortable ergonomic grip.

HT224

T Tool, provides substantial grip and leverage for fitting F connectors. Saves your skin for better things.

HAND NIBBLER



HT204

Nibbler, cuts any shape in copper, plastic or aluminium up to 18 gauge. Handy for car radio installation and cutting light steel appliance cabinets.

Audio/Video Leads, Cable, Connectors & Hand Tools

DATA HAND TOOLS



DL2668R RJ45 data and RJ11 phone Cut Strip Crimp tool.



HT182N RJ11 and RJ45 data connector handtool.



DL314KR Network cable punch down tool. Inserts cable into mechanism and trims to length. Includes handy belt scabbard (pouch).

OUTLET PLATES & MOUNTING HARDWARE

Five different series outlet plate styles compatible with popular Australian electrical switches and GPOs.

WALL PLATES — SERIES 1



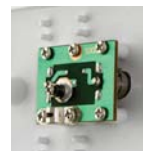
WP5 One PAL type outlet screw and saddle.



WP5/ISOL One PAL type 2kV isolated outlet, for extra safety.



WP5F One PAL type outlet with F Female input, fully screened.



WPDE Two PAL outlets from one input @-4dB. Suits TV displays, etc.



WPF One F Female outlet and input, fully screened.



WPFTAP One PAL outlet and one F outlet for Free To Air and PayTV. Dual F Type inputs.

Audio/Video Leads, Cable, Connectors & Hand Tools



WPSPL

One PAL outlet @-4dB with rear Input and Output.



WPTVFM

One PAL TV outlet and one PAL FM outlet. Integrated TV FM separator.



WPVCR/TV

Three PAL TV outlets marked ready for VCR / DVD system.



WPB

Blank plate, cover mistakes etc.

WALL PLATES — SERIES 2



WPBP2

Two Binding Posts, polarised Red and Black. Screw down terminal or Banana Plug.



WPBP4

Four Binding Posts, polarised Red and Black. Screw down terminal or Banana Plug.



WPRCA2

Two RCA type Female terminals with solder connection on rear. Red and Black polarity indicators.



WPRCA4

Four RCA type Female terminals with solder connection on rear. 2 x Red and Black polarity indicators.

White outlet plates with Binding Posts for loudspeakers and RCA connectors for High Ω Video and Audio.

WALL PLATES — SERIES 3

Bull nose wall plates provide a simpler way to run your cables into the cavity. These plates have a large opening which can accommodate the thickest HDMI and speaker cables, even power cables where practical. Brush accessory is included to make the finish as neat as possible.



WPCBRUSH

Pass cables straight through for neat result even in tight space.



WPBULLSLIMW

Bull Nose Wall Plate with slimline nose.

Audio/Video Leads, Cable, Connectors & Hand Tools



WPBULLNOSEB

Bull Nose Wall Plate, Black. Opening 65mm wide x 30mm deep.



WPBULLNOSEW

Bull Nose Wall Plate, White. Opening 65mm wide x 30mm deep.



WPBULLRECESSB

Bull Nose Wall Plate with recessed nose, Black.



WPBULLRECESSW

Bull Nose Wall Plate with recessed nose, White.

WALL PLATES — SERIES 4

WPC1



WPC2



WPC3



WPC4



WPC6



WPCB



WPCS1



WPCS2



One socket fitted



Internal View

WPC1

Premium Wall plate, 1 gang insert.

WPC2

Premium Wall plate, 2 gang inserts.

WPC3

Premium Wall plate, 3 gang inserts.

WPC4

Premium Wall plate, 4 gang inserts.

WPC6

Premium Wall plate, 6 gang inserts.

WPCB

Premium Wall plate, Blank.

WPCS1

Skirting board outlet for single data/phone socket insert.

WPCS2

Skirting board outlet for dual data/phone socket inserts.

These "Clip In" Wall Plates match popular Australian flush Wall Plates.

WALL PLATES — SERIES 5

WPCC1



WPCC2



WPCC3



WPCC4



WPCC6



WPCC1

Wall plate, 1 gang insert.

WPCC2

Wall plate, 2 gang inserts.

WPCC3

Wall plate, 3 gang inserts.

WPCC4

Wall plate, 4 gang inserts.

WPCC6

Wall plate, 6 gang inserts.

These "Clip In" Wall Plates match popular Australian "classic" flush Wall Plates.

Audio/Video Leads, Cable, Connectors & Hand Tools

INSERTS — SERIES 4 & SERIES 5



WPMCBPGB Black Binding post insert.



WPMCBPGR Red Binding post insert.



WPMCFF F to F type insert.



WPMRCARCA RCA to RCA insert (available in Red, White, Yellow, Green, Blue and Black).



WPMCRJ45 RJ45 network insert.



WPMCRJ11 RJ11 telephone insert.



WPMCB Blank insert to cover unused holes in plates.



WPMCHDMI HDMI to HDMI straight insert.



WPMCHDMIRA HDMI to HDMI right angle insert.



WPMCRCAF RCA to F Female insert (available in Red, White, Yellow, Green, Blue and Black).



WPMCFF3 F to F type insert, 3GHz.



WPMCPF PAL to F type insert.



WPMCCAT6 CAT6 network insert.

These Wall Plates inserts "Clip In" from the rear.
Build your outlets to suit each task TV, FM, AV, and Data.

WALL PLATES & INSERTS — SERIES 6

WPE1



WPE2



WPE3



WPE4



WPE6



WPE1 Wall plate, 1 mech insert.

WPE2 Wall plate, 2 mech inserts.

WPE3 Wall plate, 3 mech inserts.

WPE4 Wall plate, 4 mech inserts.

WPE6 Wall plate, 6 mech inserts.

PDL type wall plates and a broad range of extra low voltage mechanisms make almost anything possible!

Audio/Video Leads, Cable, Connectors & Hand Tools



WPM500B Blanking insert. Fill unused WPE holes.



WPM619KC Wall plate key stone type jack adapter.



WPM619M4 RJ11 phone socket looping, White.



WPME Empty insert, 9.9mmØ 1mm hex hole.



WPM619MM Wall plate insert, Clipsal adapter.



WPMFF F to F type insert.

WPMFFP F to F type insert (Foxtel Approved F10448).



WPMBPB Binding Post plastic, Black.



WPMFPF PAL to F type TV insert.



WPGBPR Binding Post plastic, Red.



WPMBPGR Binding Post gold plated, Red.



WPMBPGB Binding Post gold plated, Black.



WPMRF RCA to F Female insert, Red, Black, Blue, Green, Yellow & White.



WPMRS RCA Solder, Red, Black, Blue, Green, Yellow and White.



RJ45KS Cat5E requires WPM619KS adapter, Blue, Green, Red, Yellow & White.



WPMHDMI HDMI to HDMI straight insert.

SKIRTING TELEVISION OUTLETS

Simple TV outlet assemblies, designed to screw to your skirting board but will fit almost any flat surface. Drill pilot holes please.

EU503 Skirting socket, PAL outlet, saddle and screw on rear.

EU503DE Skirting socket, 2x PAL Female, saddle and screw on rear.

EU503F Skirting socket, F - F connector.

EU503ISOL Skirting socket, PAL isolated, saddle and screw on rear.

EU503PF Skirting socket, PAL - F Type.



EU503



EU503DE



EU503F

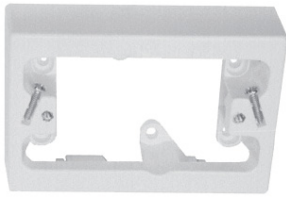


EU503ISOL

Audio/Video Leads, Cable, Connectors & Hand Tools

PLATE MOUNTING HARDWARE

CLI449A



CLI449AS



CLI449A Mounting Block 34mm.

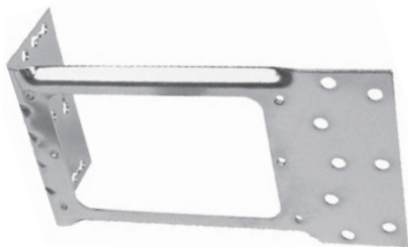
CLI449AS Mounting Block 10mm.



WPRECW Recessed mounting point.

Set your AV connectors and power points back by 60mm to conceal bulky plugs behind flat televisions refrigerators etc. Includes steel mounting clip.

WBS



WCP

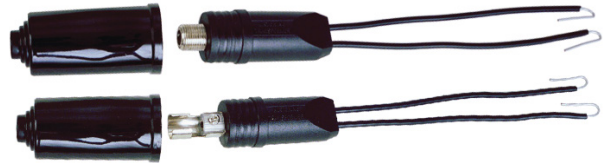


WBS Stud mounting bracket for W series plates. Nails to stud for secure fix. Also suits power points etc.

WCP Plaster mounting clip for W series outlet plates. Also suits power points, switches etc.

BALUNS

Improves the efficiency of transfer of signal energy from an antennas dipole typically 300Ω to TV coax cable's 75Ω.



2030SC 300-75Ω Weatherproof antenna balun with screw and clamp terminals and solid wires.

2030F 300-75Ω Weatherproof antenna balun with Female F connector and solid wires.



MHBT 300-75Ω telray DL type weatherproof masthead balun with aluminium strap antenna connections.

MHBTW 300-75Ω telray DL type weatherproof balun with wire antenna connections. UV stable plastic.



BT1 300-75Ω set balun, 300Ω screw terminals to PAL Male connector.



BT2F 75-300Ω set balun, F Female connector to 300Ω ribbon with spade lugs.

BT2PAL 75-300Ω set balun, PAL Female connector to 300Ω ribbon with spade lugs.

Audio/Video Leads, Cable, Connectors & Hand Tools

MULTI-PURPOSE WORK CLOTHES

A new style of work clothes for Australians. Multi pocket pants with internal/external knee pad pockets and zip away sections. Also a zip up vest with more pockets. Now you can carry tools and materials, leaving both hands free to work!



JOBMAN
WORKWEAR



- Holster pockets with extra compartments. Inset front pockets. Inset back pockets. Leg pocket with extra compartment. Rule pocket with knife compartment. Leg pocket with flap and phone compartment. External reinforced knee pockets.
- Material: 65% polyester/35% cotton, 260g/m2.

AS/NZS 4399 Sun Protection Clothing Classification — rated UPF 50+ for excellent protection

- Hip pocket for phone. Slanted front pockets. Back patch pockets, right with flap. Leg pocket with flap. Leg pocket with ruler compartment. Internal knee pockets.
- Material: 65% polyester/35% cotton, 260g/m2.

AS/NZS 4399 Sun Protection Clothing Classification — rated UPF 50+ for excellent protection.
Not suitable for prolonged kneeling.



- Right back pocket with flap. Inset front pockets. Phone pocket. Right leg pocket with pen holder and rule pocket. Left leg pocket with flap.
- Material: 65% polyester, 35% cotton, 260g/m2.

AS/NZS 4399 Sun Protection Clothing Classification — rated UPF 50+ for excellent protection



- Inset pockets at front and back and no knee pad pockets. Left leg pocket with zip and open compartment. Phone pocket on right leg.
- Material: 65% polyester/35% cotton, 190g/m2.



ARKANSAS Work Vest

- Four Cordura®-reinforced holster pockets that can be tucked away individually. Two breast pockets equipped with a pen holder, attachments for a knife sheath and more on both sides. ID-card pocket. Telephone pocket with e-care, which helps shield the body from the phone radiation. Wear-resistant support belt with sturdy loops and a plastic buckle.
- Material: 100% cotton, 375 g/m².

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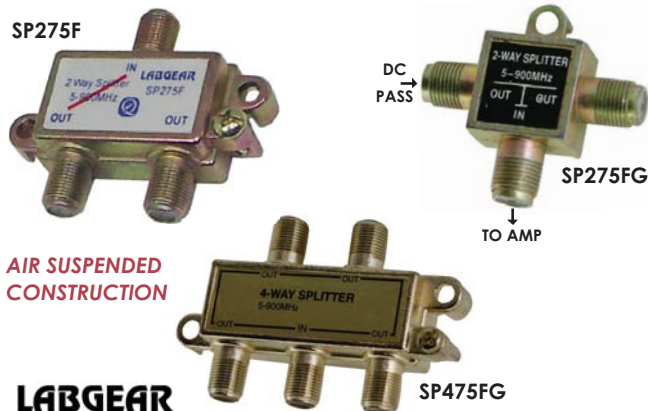
Diplexers, Filters & Passives

SPLITTERS / POWER DIVIDERS

TERRESTRIAL 900MHz



- EU222** 2 way screw and saddle, One Port Power pass.
- EU223** 3 way screw and saddle, One Port Power pass.
- EU224** 4 way screw and saddle, One Port Power pass.



- SP275F** 2 way F type splitter, power pass one port.
- SP275FG** 2 way small F type splitter, power pass one port.
- SP475FG** 4 way F type splitter, power pass all ports.

One Port Power pass 5 to 900MHz splitters, glass fibre PCB construction with equalization and impedance matching.



LABGEAR

- SP275FP** 2 way F type, power pass one port. Insertion loss -3.5dB @ 500MHz.



LABGEAR

- SP375FP** 3 way F type, power pass one port. Insertion loss -5.5dB @ 500MHz. Balanced outputs.



LABGEAR

- SP475FP** 4 way F type, power pass one port. Insertion loss -7dB @ 500MHz.

Tech Tip:

Sometimes called Power Dividers, splitters divide or mix R.F. power across their entire bandwidth, unlike diplexers etc. that are frequency selective.



LABGEAR

- SP675FP** 6 way F type, power pass one port. Insertion loss -10.5dB @ 500MHz.



LABGEAR

- SP875FP** 8 way F type, power pass one port. Insertion loss -10.5dB @ 500MHz.



LABGEAR

- SP1275FP** 12 way F type, Power pass one port. Insertion loss -12dB @ 500MHz.



LABGEAR

- SP1675FP** 16 way F type, Power pass one port. Insertion loss -14dB @ 500MHz.

Diplexers, Filters & Passives

Higher isolation and return loss 900MHz splitters. Port positions enable neater results and better weather protection. RF shielding $\geq 120\text{dB}$.



LABGEAR

SP275FPV

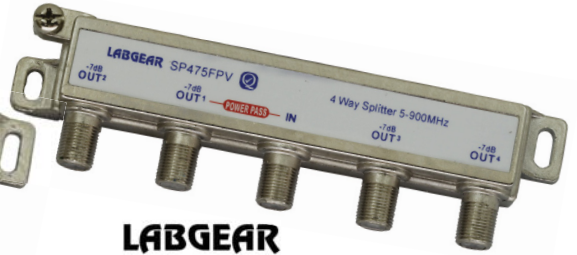
2 way F type, power pass one port. Insertion loss -3.5dB @ 500MHz.



LABGEAR

SP375FPV

3 way F type, power pass one port. Insertion loss -3.5, -3.5, -7dB @ 500MHz. Unbalanced.



LABGEAR

SP475FPV

4 way F type, power pass one port. Insertion loss -7dB @ 500MHz.

2GHz SPLITTERS

FRACARRO



PA2 2 way, Split Loss $\leq 5.5\text{dB}$, Isol. $\geq 20\text{dB}$. 5-2400MHz.

PA3 3 way, Split Loss $\leq 10\text{dB}$, Isol. $\geq 22\text{dB}$. 5-2400MHz.

PA4 4 way, Split Loss $\leq 11\text{dB}$, Isol. $\geq 26\text{dB}$. 5-2400MHz.

PA6 6 way, Split Loss $\leq 13.5\text{dB}$, Isol. $\geq 22\text{dB}$. 5-2400MHz.

PA8 8 way, Split Loss $\leq 15.5\text{dB}$, Isol. $\geq 20\text{dB}$. 5-400MHz.

All Port Power pass splitters. Quality construction. Higher isolation and return loss. Port positions permit neater results and better weather protection. Shielding $\geq 120\text{dB}$.

Aerial AI



AISP2 2 way, Split Loss $\leq 5.5\text{dB}$, Isol. $\geq 20\text{dB}$. 5-2400MHz.

AISP4 4 way, Split Loss $\leq 11\text{dB}$, Isol. $\geq 26\text{dB}$. 5-2400MHz.

All Port DC pass via diode control. High quality PCB construction with high isolation and return loss. Port positions result in easier installation in smaller spaces. Shielding $\geq 120\text{dB}$.

LABGEAR



SP22GDV 2 way, Split Loss $\leq 5.5\text{dB}$, Isol. $\geq 20\text{dB}$. PayTV approved.

SP32GDV 3 way, Split Loss $\leq 10\text{dB}$, Isol. $\geq 22\text{dB}$.

SP42GDV 4 way, Split Loss $\leq 10\text{dB}$, Isol. $\geq 22\text{dB}$.

5-2,050MHz Premium Quality Inductive splitters with all input and output ports on one side. All port Power pass with Diode Control. High Return Loss. Loss and Outlet to Outlet isolation shown at 1,750MHz.



SP6125 2 way Satellite Splitter, Power pass All Ports, Diode Control.

SP6126 2 way Satellite Splitter, Power pass 1 Port.

SP6127 4 way Satellite Splitter, Stripline technology, Power pass All Ports.

Low loss 900-2,050MHz Strip Line splitters with slightly higher attenuation over 40-860MHz. Quality without a high price tag.

Tech Tip:

Splitters with Diode Controlled Power pass permit any receiver connected to power the LNB. However the higher voltage will rule the polarity switch. Alternately the One Port Power pass solution requires the receiver connected to the Power pass to always be connected if the other receivers are to function.

Diplexers, Filters & Passives

PLUG IN PAL TYPE SPLITTERS 1GHz

LABGEAR

SUVTM

2 way splitter PAL type connectors, Metal.
Male input to 2 x Female outputs. Power pass all ports.

SUVTP

2 way splitter PAL type connectors, Plastic.
Male input to 2 x Female outputs. Power pass all ports.



TAPS & DIRECTIONAL COUPLERS

1GHz

Quality 5-1,000MHz F connector taps or couplers. High isolation, Return Loss ≥ 18 dB @ 500MHz.



FA1-8



FA2-8

LABGEAR

	Taps	Tap Value	In-out loss @500MHz
FA1-6	1 tap	-6.5dB	-2.0dB
FA1-8	1 tap	-8.5dB	-2.0dB
FA1-10	1 tap	-10dB	-1.3dB
FA1-12	1 tap	-12.5dB	-0.8dB
FA1-16	1 tap	-16dB	-0.8dB
FA1-20	1 tap	-20dB	-0.6dB
FA1-24	1 tap	-24dB	-0.6dB
FA1-30	1 tap	-30dB	-0.6dB

FA2-8	2 taps	-8.5dB	-4.0dB
FA2-10	2 taps	-10dB	-3.0dB
FA2-12	2 taps	-12.5dB	-1.8dB
FA2-16	2 taps	-16dB	-1.0dB
FA2-20	2 taps	-20dB	-1.0dB
FA2-24	2 taps	-24dB	-0.6dB
FA2-30	2 taps	-30dB	-0.6dB



FDC12B 1 out -12dB, insertion loss 1dB.

FDC17B 1 out -17dB, insertion loss 1dB.

FDC23B 1 out -23dB, insertion loss 1dB.

Low cost directional couplers, Air Suspended construction.



FA4-12

LABGEAR

	Taps	Tap Value	In-out loss @500MHz
FA4-10	4 taps	-10dB	-6.0dB
FA4-12	4 taps	-12dB	-4.0dB
FA4-14	4 taps	-14dB	-2.5dB
FA4-16	4 taps	-16dB	-1.7dB
FA4-18	4 taps	-18dB	-1.5dB
FA4-20	4 taps	-20dB	-1.3dB
FA4-24	4 taps	-24dB	-0.6dB
FA4-27	4 taps	-27dB	-0.6dB
FA4-30	4 taps	-30dB	-0.6dB

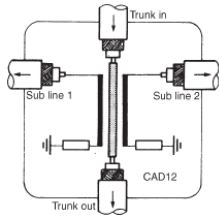


FA8-14

LABGEAR

	Taps	Tap Value	In-out loss @500MHz
FA8-14	8 taps	-14dB	-3.9dB
FA8-16	8 taps	-16dB	-2.4dB
FA8-18	8 taps	-18dB	-2.0dB
FA8-20	8 taps	-20dB	-1.4dB
FA8-24	8 taps	-24dB	-1.2dB
FA8-27	8 taps	-27dB	-1.0dB
FA8-30	8 taps	-30dB	-0.6dB

Diplexers, Filters & Passives



CD264/CAD14 etc. in optional CN9 housing

Tech Tip:
CD models use ferrite whilst CAD models use stripline technology to provide higher loss at lower frequencies thereby helping equalise cable losses at higher frequencies.

Unique Fracarro high performance couplers provide the convenience of screw and saddle thanks to precision design and unique shielded terminals.

FRACARRO

	Taps	Tap Value	In-out loss @ MHz
CAD11	1 tap	-27/12dB	-0.1-0.7dB
CAD12	2 taps	-27/13dB	-0.1-0.8dB
CAD13	3 taps	-27/15dB	-0.2-2.0dB
CAD14	4 taps	-27/15dB	-0.1-1.9dB
CN9	Optional housing for FR couplers.		
CD11	1 tap	-10dB	-0.8-1.1dB
CD141	1 tap	-14dB	-0.3-0.5dB
CD201	1 tap	-20dB	-0.2-0.6dB
CD261	1 tap	-26dB	-0.2-0.7dB
CD12	2 taps	-10dB	-1.3-1.8dB
CD142	2 taps	-14dB	-0.6-1.1dB
CD202	2 taps	-20dB	-0.6-1.1dB
CD262	2 taps	-26dB	-0.7-1.2dB
CD144	4 taps	-14dB	-0.8-2.8dB
CD204	4 taps	-20dB	-0.3-1.2dB
CD264	4 taps	-26dB	-0.3-1.2dB

1GHz MULTITAPS

Multiple tap values in one device help equalize signal levels in star wired 5-860MHz MATV systems. Power pass from in to out. Specifications at 500MHz. Return Loss ≥ 20 dB.



FA4MT	-13dB/-14dB/-15dB/-16dB. In to out insertion loss -4dB.
FA6MT	-13dB/-14dB/-15dB/-16dB/-17dB/-18dB. In to out insertion loss -6dB.
FA8MT	-13dB/-14dB/-15dB/-16dB/-17dB/-18dB/-19dB/-20dB. In to out insertion loss -8dB.

2GHz MULTITAPS

4-2,300 MHz 4 output Multitaps. The quality way to distribute QPSK Satellite 1st IF. In to out loss quoted @ 1,750MHz.



DM36/10	4 tap: -11dB/-12dB/-13dB/-14dB. In to out insertion loss -5dB.
DM36/13	4 tap: -13dB/-14dB/-15dB/-16dB. In to out insertion loss -4dB.
DM36/16	4 tap: -16.5dB/-17dB/-17.5dB/-18.5dB. In to out insertion loss -3dB.
DM36/19	4 tap: -18.5dB/-19dB/-19.5dB/-20.5dB. In to out insertion loss -2dB.
DM37	-12.5dB/-13.5dB/-14dB/-14.5dB/-15.5dB/-16.5dB. In to out insertion loss -5dB.

SATELLITE DIRECTIONAL COUPLERS



	Taps	Tap Value	In-out loss @1750MHz
AITP10	1 tap	-10dB	-1.6dB
AITP16	1 tap	-16dB	-1.2dB
AITP22	1 tap	-22dB	-0.8dB

5 2,500MHz. High isolation directional couplers. Power pass In to Out.

Diplexers, Filters & Passives



transmedia

FAS1-6

	Taps	Tap Value	In-out loss @950MHz
FAS1-6	1 tap	-6dB	-3.5dB
FAS1-8	1 tap	-8dB	-3.5dB
FAS1-12	1 tap	-12dB	-3.5dB
FAS1-15	1 tap	-15dB	-3.5dB
FAS1-20	1 tap	-20dB	-1.0dB
FAS2-10	2 taps	-10dB	-3.5dB
FAS2-12	2 taps	-12dB	-3.5dB
FAS2-15	2 taps	-15dB	-3.0dB
FAS2-20	2 taps	-20dB	-3.0dB
FAS4-15	4 taps	-15dB	-4.5dB
FAS4-20	4 taps	-20dB	-4.5dB
FAS4-25	4 taps	-25dB	-4.0dB

5–2,500MHz F connector taps. @ 1,750MHz outlet isolation ≥18dB, Return Loss ≥14dB. Power pass in to out.



FRACARRO

DE1-10

	Taps	Tap Value	In-out loss @1750MHz
DE1-10	1 tap	-10dB	-1.6dB
DE1-14	1 tap	-14dB	-1.2dB
DE1-18	1 tap	-18dB	-0.9dB
DE1-22	1 tap	-22dB	-0.8dB
DE2-10	2 taps	-10dB	-2.5dB
DE2-14	2 taps	-14dB	-1.8dB
DE2-18	2 taps	-18dB	-1.5dB
DE2-22	2 taps	-22dB	-1.5dB
DE4-12	4 taps	-12dB	-5.1dB
DE4-14	4 taps	-14dB	-3.0dB
DE4-18	4 taps	-18dB	-1.5dB
DE4-22	4 taps	-22dB	-1.2dB
DE6-16	6 taps	-16dB	-5.5dB
DE6-20	6 taps	-20dB	-4.0dB
DE6-25	6 taps	-25dB	-2.0dB
DE8-16	8 taps	-16dB	-5.5dB
DE8-20	8 taps	-20dB	-4.5dB
DE8-25	8 taps	-25dB	-2.0dB

5-2,500MHz F connector Sat and Terrestrial taps. High Tap Isolation and Return Loss. Power pass in to out.

DIPLEXERS & MULTIPLEXERS

BAND MIXERS OR SEPARATORS



FRACARRO

MX201

Fracarro VHF/UHF Diplexer, F type with power pass on VHF port. Insertion loss. VHF: ≤0.2dB, UHF: ≤0.2dB.

MX206

Fracarro B1+FM / B3 / UHF Triplexer, F type with power pass on UHF port. Insertion loss. B1+FM: ≤0.5dB, B3: ≤0.5dB, UHF: ≤1dB.

MX208

Fracarro VHF/UHF Diplexer, F type. With optional Power pass on either input. VHF : ≤0.5dB, UHF: ≤-1 dB.

MX210/41-45

Fracarro VHF/B4/B5 Diplexer, F type. B4 input CH28-41, B5 input CH45-69. Insertion loss. VHF: ≤0.5dB, UHF: ≤-1dB. Other channels available to your order.



FRACARRO

JSVU3

Outdoor combiner with F connectors. Compatible with Analogue and Digital TV signals. Input 1 VHF and S bands (40–446MHz). Input 2 UHF (470–862MHz). Insertion loss <1dB, return loss 10dB.

Diplexers, Filters & Passives

Quality Screw Clamp Multiplexers

FRACARRO



ESVU	VHF/UHF diplexer, Power pass on UHF input.
ESVU2	VHF/UHF diplexer, Power pass on VHF input.
ES345/32	Au ch.20–28 UHF Low, Au ch.33–75 UHF High and B3, 3 input mixer, Power pass UHF High, Trap B1 and 2.
ES345/39	Au ch.20–35 UHF Low, Au ch.41–75 UHF High and B3, 3 input mixer, Power pass both UHF, Trap B1 and 2.
ES345/43	Au ch.20–43 UHF Low, Au ch.45–75 UHF High and B3, 3 input mixer, Power pass B3 to UHF High, Trap B1 and 2.
ESL3U	UHF, B3 and B's 1 and 2, 3 input mixer. Band 3 -3dB at Au ch. 5A. Power pass UHF.
ESV45	Au ch.20–36 UHF Low, Au ch.40–75 UHF High and VHF, 3 input mixer. Power pass UHF High.
ESV45S	Au ch.20–32 UHF Low, Au ch.38–75 UHF High and VHF, 3 input mixer. Power pass UHF High.
ESVUU	UHF, UHF and VHF, 3 input mixer. Power pass 1 UHF port. (-4dB UHF as UU mix is wide band!).

LABGEAR



MVUFV	Diplexer F Type. VHF: 0.6–350MHz, insertion loss 0.4dB. UHF: 350MHz–900MHz, insertion loss 0.5dB. Power pass to VHF port. Diecast zamac housing.
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LABGEAR



M1-4/5FV	Mix bands 1 to 4 with band 5. ≤1dB insertion loss. Power pass on both inputs.
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Useful in capital cities to mix local signals from modulators etc. with off air signals. Diecast metal housing.

ALCAD



MM207	VHF/UHF diplexer, F Type weatherproof. VHF: ≤-.4dB, UHF: ≤-.8dB.
MM307	VHF/UHF/UHF diplexer, F Type weatherproof. VHF: ≤-.5dB, UHF ≤4.5dB.

Fully shielded metal housing. Plastic cover for weather proofing.

Kingray



DPOUV	VHF/UHF Diplexer. Screw and saddle connections. Optional Power pass on either input.
DPOUVF	VHF/UHF Diplexer. F Type connections. Optional Power pass on either input.



MX51HLF	VHF High/Low F Type diplexer.
MX61UVF	VHF/UHF F Type diplexer.



MXAOF	Ch.0 /2–69 F Type diplexer. Improved filter design and F connectors in full shielded case.
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Hills



DPX3	Mix Channels 0–6 with 9–11. (181/195MHz crossover freq.) 1dB through loss.
DPX4	Mix Channels 0–7 with 11 (188/215MHz crossover freq.) 1dB through loss.
DPX6	Mix Channels 0 with 2–11 (53/63MHz crossover freq.) 1.5dB through loss.

Diplexers, Filters & Passives

SET DIPLEXERS



SD300300	300ΩUHF/300ΩVHF out, 75Ω in.
SD30075	300ΩUHF/75ΩVHF out, 75Ω in.
SD7575	75ΩUHF/75ΩVHF out, 75Ω in.

ANTENNA SWITCH



AISW2

2 way antenna switch, F connector. .5dB insertion loss with >50dB isolation, RF and IF. Permits weak and strong signals to coexist, with quality leads.

SATELLITE IF/TERRESTRIAL DIPLEXERS

PayTV
Approved



BS20

PayTV
Approved



BS30

LABGEAR

transmedia

BS20	Mix or separate 950–2050MHz 1st I.F. and 40-860 MHz. Power pass to SAT port. Low cost high spec.
BS30	Mix or separate 1st I.F. and 40-860 MHz. Use a pair to mix and then separate. Traditional high spec.

ANTENNA STACKING COUPLERS



FRACARRO

TMU/2

UHF Band 4 and 5, 2 way stacking coupler +3dB, outdoor design, cover excluded.

TMU/4

UHF Band 4 and 5, 4 way stacking couplers +6dB., outdoor design, cover excluded.

Extra signal and narrower beamwidth are achieved by stacking antennas with practically nil insertion loss! A clever way to reduce multipath and sidelobes whilst optimising front to back ratio. Equal lengths of antenna coax required when stacking antennas.

TERMINATORS



FC7014



AIDCBT



TE75PAL

TE75SC



FC7014 F connector 75Ω terminator, 5–1,000MHz.

AIDCBT F Connector 75Ω DC blocking terminator, 5–3000MHz.

MM-DV25 F connector 75Ω terminator for satellite.

TE75PAL PAL Male terminator.

TE75SC Screw and Clamp terminator.

Tech Tip:

End of line or last tap out must be terminated to 75Ω with a terminating resistor to ensure stable system function.



MM214

Mix or separate 950–2400MHz 1st I.F. and 5-862MHz. ≤-.1dB TV, ≤-.3dB SAT.

Diplexers, Filters & Passives

ATTENUATORS

FIXED ATTENUATORS



FATT3	3dB fixed F type m-f 75Ω attenuator.
FATT6	6dB fixed F type m-f 75Ω attenuator.
FATT12	12dB fixed F type m-f 75Ω attenuator.
FATT24	24dB fixed F type m-f 75Ω attenuator.



PATT3	3dB fixed PAL type m-f 75Ω attenuator.
PATT6	6dB fixed PAL type m-f 75Ω attenuator.
PATT12	12dB fixed PAL type m-f 75Ω attenuator.
PATT24	24dB fixed PAL type m-f 75Ω attenuator.



500mA

FATT6PP	6dB fixed F type m-f 75Ω attenuator. Power pass.
FATT12PP	12dB fixed F type m-f 75Ω attenuator. Power pass.
FATT24PP	24dB fixed F type m-f 75Ω attenuator. Power Pass.



BL12F	Band 1 attenuator, -15dB, F to F connection.
--------------	--

VARIABLE ATTENUATORS



**Fully shielded
Zamac Case.**

AT7520F

20dB Variable attenuator, F type.

Range:	0 to -20dB in 4 turns
Impedance:	Constant 75Ω
Frequency range:	0-1,000MHz
Insertion loss:	<0.5dB
5-300MHz:	<0.15dB
300MHz-1GHz:	<0.45dB
Return loss:	≤16dB



AT7520

Flat frequency response past 860MHz. Solder inside FH-1, behind outlet plates, etc. Don't risk the mismatch potentiometers cause when used as variable attenuators.



**Fully shielded
case.**

AT7520M

20dB Variable attenuator, PAL Male to F connector.

Range:	0 to -20dB in 4 turns
Impedance:	Constant 75Ω
Frequency range:	0-1,000MHz
Insertion loss:	<0.5dB
5-300MHz:	<0.15dB
300MHz-1GHz:	<0.45dB
Return loss:	≤16dB

Diplexers, Filters & Passives

FILTERS & ISOLATORS

MULTI BAND PASS FILTER COMBINER



Kingray

FL3BPMH

Weatherproof bandpass filter and combiner with options of 1, 2, and / or 3 inputs. Rejects MW and 27MHz radio -40dB, VHF low -12dB (variable), FM radio -30dB (selectable), 148MHz paging -30dB, UHF comms -40dB and GSM -20dB and CDMA -30dB, TV <2dB loss.

FRACARRO BAND & CHANNEL PASS FILTERS



FRACARRO

FB4 Weatherproof masthead B4 Pass filter. Typical through loss -1dB.

FB5 Weatherproof masthead B5 Pass filter. Typical through loss -1dB.



FRACARRO

FU/A.. UHF Channel Pass, pre-aligned to Ch.29. Pass band freq. can be altered ± 3 channels with care. Made to order for any UHF channel.



FRACARRO

FS/AU28

Prealigned for max. rejection of Au Ch.28 to enable reception of weak UHF. Adjustable ± 3 channels. Allow 1 Ch. either side. Weatherproof. Other channels available — made to order.



FRACARRO

F5R/CH

Pass one band 3 channel @- ≤ 1 dB whilst trapping specified adjacent channel. Made to order.

Diplexers, Filters & Passives

FM (88–108MHz) REJECTION FILTERS

Eliminate FM radio interference. Amplifiers increase harmonics with harmful 88–108MHz harmonics often falling in TV band 3.



FRACARRO

FS/FM

Fracarro Masthead Filter, >-40dB to -50dB. Screw and saddle terminals.



FRACARRO

FP/FM

Fracarro FM Filter >-50dB to -55dB. M-F PAL 9.5mmØ connectors.

For indoor use only.



LABGEAR

FM50FV

>-50dB FM filter, 88–108MHz, F type connectors.

NOTCH FILTERS



FRACARRO

SF4

Band 4, 2 x -20/30dB notches, user tunable.

SF5

Band 5, 2 x -20/30dB notches, user tunable. Power pass SF5 only!

Two independent filters within each SF permit either 2 frequencies to be attenuated or twice the attenuation on one frequency. Tuning is easiest with a noise generator and a meter with a spectrum function.

Tech Tip:

SF4/SF5 can be used to stop local broadcasts not required from interfering with UHF modulator channels, Analogue or Digital.

FILTER HOUSINGS



FH1

Empty case with PAL Male and Female connectors, 7mmØ trimmer hole. Build your own filters etc.



FH2

Empty case with 3 x F Female connectors. Highly screened suits use with higher power levels. Build your own mixers.

Diplexers, Filters & Passives

BRAID BREAKERS



BBPAL1 Braid Breaker with PAL type Male to Female connectors, 5–1,000MHz.Reduce AM radio resonance's in longer coax runs. Most effective near the end of a long cable run.



TFBB1 Braid Breaker, reduces induction of nearby MW broadcasts. ≤ 1 dB loss.

ISOLATORS



IS3kV 3Kv centre conductor and braid isolator. < 1 dB insertion loss 5–1000 MHz. Blocks potentially dangerous voltages that accumulate in MATV and Cable TV systems. Can provide isolation to non isolated TV outlet plates too.



AIDCB F Connector DC block, 5–3000MHz.



FBLKDC Block AC/DC Power path, ≤ 1 dB 1750MHz.

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TEST INSTRUMENTS

UNAOHM HANDHELD INSTRUMENTS

UNAOHM

T40A



DIGITAL PRECISION

Features:

- **T40a and T40a PLUS** Hand held spectrum analyzer with COFDM DVBT digital measurements
- Measures digital and analogue TV and FM. Level: 20-120dBμV Frequency: 45-860MHz
- Selectable for dBμV, dBm and dBmV
- Digital COFDM pre and post Viterbi BER, RS, MER and CSI quality
- Analogue C/N, V/A hold MAX, MIN and FREEZE
- Automatic detection of digital and analogue signals measuring DCP Power or "peak" detection
- QAM estimated BER
- Spectrum display with various span resolutions to 10MHz
- Histogram of up to 42 channels simultaneously for easy equalization of channels
- Tilt indication of up to 42 channels
- Dual markers for dual, independent, level and frequency deltas
- Data logging of up to 1500 single logs
- Programmable manually or via supplied computer controlled software
- Instructional CD ROM supplied



PLUS OPTION:

- NIT(Network Identification Table) identifies Broadcaster and content within the channel
- Adaptive Equalizer Response (AER) to measure SFN or "digital echoes" to 67km

UNAOHM

S48 PLUS



DIGITAL PRECISION

DVBS/S2 HD

Features:

- S48 PLUS Hand held spectrum analyzer for QPSK-DVBS/8PSK-DVBS2 digital measurements
- Measures digital and analogue satellite signals, input level: 40-120dBμV, frequency: 920-2150MHz
- Selectable for dBμV, dBm, dBmV
- Digital QPSK/8PSK pre and post Viterbi BER, RS and MER quality
- CFO(Centre Frequency Offset), LNB quality indicator
- Hold function: MIN, MAX, FREEZE
- Spectrum display with various span resolutions to 10MHz
- Histogram of up to 42 transponders simultaneously in both polarities for easy equalization
- Tilt indication of up to 42 transponders for SMATV
- Dual markers for dual, independent, level and frequency deltas
- Data logging of up to 1500 single transponders
- Programmable manually or via supplied computer controlled software
- Instructional CD ROM supplied
- Can be pre programmed for either of the PayTV providers or a customized "Australian" satellite plan
- Approved by most service providers
- NIT(Network Identification Table) identifies Satellite name, orbital position and content within the transponder
- ASL(Auto Satellite Locator) allows detection of only the satellite selected, eliminating incorrectly found satellites. The only system that works for non DVB-VSAT!

DVBS/S2
SATELLITE

Instruments

UNAOHM PROFESSIONAL

UNAOHM

AP201



Professional field strength meter
terrestrial, cable, satellite,
digital, analogue.

INSTANT SPECTRUM RESPONSE!

DVB-S/S2
SATELLITE

DVB-T
TERRESTRIAL

DIGITAL MEASUREMENTS INCLUDE:

CH-BER(PRE VITERBI),
PV-BER(POST VITERBI),
MER, RS-UNCORRECTED, NM, CSI,
SNR & EVM, CONSTELLATION DISPLAY
FOR VERSION CHOSEN

Main Features

Frequency Range:	Continuous 45–2250 MHz
Spectrum Analyzer:	Real Time – 2 Markers
MPEG2:	MPEG2 decoder
DISEqC:	1.1; 1.2 (ROTOR); 2.0; SCR
Data-Logger:	5 plans containing 50 programs each 1500 Measures Capability
Monitor:	Colour LCD 5.7" 320x240, High Brightness
Battery:	Li-Ion, more than 4h Autonomy; 4h charge time
"CLC" Function:	Calculation of cable length from the measurement point to the fault point (optional noise generator required)
"TP-Sat" Function:	Pre-stored satellite table to recall transponders directly
AER:	Adaptive Equalizer Response for echo & SFN analysis. Available only for DVB-T & DVB-C, range to 67kms.

VERSION	STANDARD EQUIPMENT
AP201 T PLUS (DVB-T)	COFDM module for DVB-T digital measurement MPEG2 module with NIT (Network Information Table) DVB-S/DVB-S2 virtual measurements DVB-C virtual measurements Reinforced nylon bag
AP201 S PLUS (DVB-S)	QPSK/8PSK module for DVB-S/DVB-S2 digital measurements MPEG2 module with NIT (Network Information Table) DVB-T virtual measurements DVB-C virtual measurements Reinforced nylon bag
AP201 C PLUS (DVB-C)	QAM module for DVB-C digital measurements MPEG2 module with NIT (Network Information Table) DVB-S virtual measurements DVB-T virtual measurements Reinforced nylon bag

Options

ITEM	DESCRIPTION
SB5-65	5 - 65 MHz Converter module (fitting at factory only)
NG96F	Internal Noise Generator
FP2E	Battery charger for car lighter

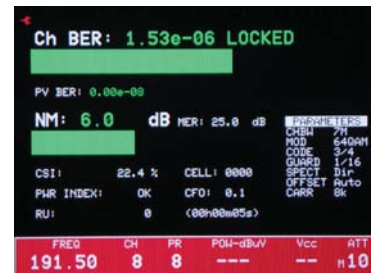
Ask about our Fibre Optic Adaptor Kit!

Spare Parts

ITEM	DESCRIPTION
BS14.4Li	Li-ion battery pack
BCH16/3,8	Battery charger
C-1001	Reinforced nylon bag

UNAOHM

AP01



Professional field strength meter
terrestrial, cable, satellite,
digital, analogue.

INSTANT SPECTRUM RESPONSE!

DVB-S/S2
SATELLITE

DVB-T
TERRESTRIAL

DIGITAL MEASUREMENTS INCLUDE:

CH-BER(PRE VITERBI),
PV-BER(POST VITERBI)
MER, RS-UNCORRECTED, NM, CSI,
SNR & EVM,
CONSTELLATION DISPLAY DVB-T/S/S2

Main Features

Frequency Range:	Continuous 45–2250 MHz
Spectrum Analyzer:	Real Time – 2 Markers
MPEG2:	MPEG2 decoder
DISEqC:	1.1; 1.2 (ROTOR); 2.0; SCR
Data-Logger:	5 plans containing 50 programs each 1500 Measures Capability
Monitor:	Colour LCD 5.7" 320x240, High Brightness
Battery:	Li-Ion, more than 4h Autonomy; 4h charge time
"CLC" Function:	Calculation of cable length from the measurement point to the fault point
"TP-Sat" Function:	Pre-stored satellite table to recall transponders directly
AER:	Adaptive Equalizer Response for echo & SFN analysis. Available only for DVB-T & DVB-C, range to 67kms.

VERSION	STANDARD EQUIPMENT
AP01-T/S (DVB-T/DVB-S)	COFDM module for DVB-T digital measurements QPSK/8PSK module for DVB-S/DVB-S2 digital measurements MPEG2 module with NIT (Network Information Table) DVB-C virtual measurements Reinforced nylon bag
AP01-C/S (DVB-C/DVB-S)	QAM module for DVB-C digital measurements QPSK/8PSK module for DVB-S/DVB-S2 digital measurements MPEG2 module with NIT (Network Information Table) DVB-T virtual measurements Reinforced nylon bag
AP01-T/C (DVB-T/DVB-C)	QAM module for DVB-C digital measurements COFDM module for DVB-T digital measurements MPEG4 + MPEG2 module with NIT (Network Information Table) DVB-S virtual measurements Reinforced nylon bag

Options

ITEM	DESCRIPTION
MPEG4-01	MPEG4 + MPEG2 decoder module
SB5-65	5 - 65 MHz Converter module (fitting at factory only)
NG96G	Internal Noise Generator
FP2E	Battery charger for car lighter
Ask about our Fibre Optic Adaptor Kit!	

Spare Parts

ITEM	DESCRIPTION
BS14.4Li	Li-ion battery pack
C-01A	Reinforced nylon bag

Instruments

UNAQHM

AP301HD



Professional field strength meter
terrestrial, cable, satellite,
digital, analogue.

INSTANT SPECTRUM RESPONSE!

DVB-S/S2
SATELLITE

DVB-T
TERRESTRIAL

DIGITAL MEASUREMENTS INCLUDE:

CH-BER(PRE VITERBI),
PV-BER(POST VITERBI),
MER, RS-UNCORRECTED, NM, CSI,
SNR & EVM,
CONSTITUTION DISPLAY DVB-T/S/S2

Main Features

Frequency Range:	Continuous 45–2250 MHz
Spectrum Analyzer:	Real Time – 2 Markers
MPEG4:	MPEG4 + MPEG2 decoder
DISEqC:	1.1; 1.2 (ROTOR); 2.0; SCR
Data-Logger:	5 plans containing 50 programs each 1500 Measures Capability
Monitor:	Colour LCD 5.7" 320x240, High Brightness
Battery:	Li-Ion, more than 4h Autonomy; 4h charge time
Mains Power Supply:	External Power Supply
"CLC" Function:	Calculation of cable length from the measurement point to the fault point (optional noise generator required)
"TP-Sat" Function:	Pre-stored satellite table to recall transponders directly
AER:	Adaptive Equalizer Response for echo & SFN analysis. Available only for DVB-T & DVB-C, range to 67kms.

VERSION	STANDARD EQUIPMENT
AP301-HD T/S (DVB-T/DVB-S/DVB-S2)	COFDM module for DVB-T digital measurements QPSK/8PSK module for DVB-S/DVB-S2 digital measurements MPEG4 + MPEG2 module with NIT (Network Information Table) DVB-C virtual measurements Reinforced nylon bag (rucksack model)
AP301-HD C/S (DVB-C/DVB-S/DVB-S2)	QAM module for DVB-C digital measurements QPSK/8PSK module for DVB-S/DVB-S2 digital measurements MPEG4 + MPEG2 module with NIT (Network Information Table) DVB-T virtual measurements Reinforced nylon bag (rucksack model)
AP01-HD T/C (DVB-T/DVB-C)	QAM module for DVB-C digital measurements COFDM module for DVB-T digital measurements MPEG4 + MPEG2 module with NIT (Network Information Table) DVB-S virtual measurements Reinforced nylon bag (rucksack model)

Options

ITEM	DESCRIPTION
SB5-65	5–65 MHz Converter module (fitting at factory only)
NG96G	Internal Noise Generator
FP2E	Battery charger for car lighter

Ask about our Fibre Optic Adaptor Kit!

Spare Parts

ITEM	DESCRIPTION
BS14.4Li	Li-ion battery pack
BCH16/3,8	Battery charger
C-313	Reinforced nylon bag (rucksack model)

Also Available AP 301–MPEG2 Decoding only

UNAOHM

AP401HD



Professional field strength meter
terrestrial, cable, satellite,
digital, analogue.

INSTANT SPECTRUM RESPONSE!

DVB-S/S2
SATELLITE

DVB-T
TERRESTRIAL

DIGITAL MEASUREMENTS INCLUDE:

CH-BER(PRE VITERBI),
PV-BER(POST VITERBI)
MER, RS-UNCORRECTED, NM, CSI,
SNR & EVM,
CONSTELLATION DISPLAY DVB-T/S/S2

Main Features

Frequency Range:	Continuous 45–2150 MHz
Spectrum Analyzer:	Real Time – 2 Markers
MPEG4:	MPEG4 + MPEG2 decoder with NiT
DISEqC:	1.1; 1.2 (ROTOR); 2.0; SCR
Data-Logger:	1700 Measures Capability
Monitor:	Colour LCD 5.7" 320x240, High Brightness
Battery:	Li-Ion, approx. 4h Autonomy; 4h charge time
Tuner:	Terrestrial analogue – Satellite analogue
"CLC" Function:	Calculation of cable length from the measurement point to the fault point
"TP-Sat" Function:	Pre-stored satellite table to recall transponders directly
AER:	Adaptive Equalizer Response for echo & SFN analysis. Available only for DVB-T & DVB-C, range to 67kms.

Options

ITEM	DESCRIPTION
COFDM-T2	COFDM-T2 board digital measures DVB-T2
MPEG4-01	Decoder Module MPEG4 / MPEG2 with NiT
SB 5–65	5–65MHz converter module
NG96	Internal Noise Generator
FP2	Battery charger for car lighter

Spare Parts

ITEM	DESCRIPTION
BT091/92	Li-ion battery pack
C-01B	Reinforced nylon bag
BCH 16/3,8	External power supply

Instruments

UNAOHM BROADCAST

UNAOHM

EP4000HD



Features include:

- **Wi-Fi Input**
- **Optic Fibre**

Professional field strength meter
terrestrial, cable, satellite, Wi-Fi,
digital, analogue.

INSTANT SPECTRUM RESPONSE!

DVB-S/S2
SATELLITE

DVB-T
TERRESTRIAL

DIGITAL MEASUREMENTS INCLUDE:

CH-BER(PRE VITERBI),
PV-BER(POST VITERBI)
MER, RS-UNCORRECTED, NM, CSI,
SNR & EVM

Main Features

Frequency Range:	Continuous 5–2250 MHz / 2000÷ 3000 MHz Wi-Fi
Spectrum Analyzer:	Real Time – 2 Markers
MPEG4:	MPEG4 + MPEG2 decoder with NiT
DISEqC:	1.1; 1.2 (ROTOR); 2.0; SCR
Data-Logger:	1700 Measures Capability
Monitor:	Colour LCD 5.7" 320x240, High Brightness
Battery:	Li-Ion, approx. 4h Autonomy; 4h charge time
Tuner:	Terrestrial analogue – Satellite analogue
"CLC" Function:	Calculation of cable length from the measurement point to the fault point
"TP-Sat" Function:	Pre-stored satellite table to recall transponders directly
AER:	Adaptive Equalizer Response for echo & SFN analysis. Available only for DVB-T & DVB-C, range to 67kms.

Options

ITEM	DESCRIPTION
"Elite" Corduroy Bag	As an alternative to standard reinforced-nylon bag (to be specifically requested upon order)
8PSK	QPSK/8PSK module for DVB-S/DVB-S2 digital measurements
COFDM	COFDM module for DVB-T digital measurements
QAM	QAM module for DVB-C digital measurements
CONST 04	Constellation module for DVB-T, DVB-C, DVB-S, DVB-S2
MPEG4-4000	MPEG4 + MPEG2 decoder module
CI4000	Common Interface module
NG96G	Internal Noise Generator
FP2E	Battery charger for car lighter

Spare Parts

ITEM	DESCRIPTION
BT091	Li-ion battery pack
C400	Reinforced nylon bag
C400-E	Elite corduroy bag

Versions

EP4000 BASIC

Li-Ion battery
Reinforced nylon bag

EP4000 CABLE HD

QAM module for DVB-C digital measurements
MPEG 4 + MPEG2 module with NIT (Network Information Table)
Constellation module
Reinforced nylon bag

EP4000 T-S HD

COFDM module for DVB-T digital measurements
QPSK/8PSK module for DVB-S/DVB-S2 digital measurements
MPEG4 + MPEG2 module with NIT (Network Information Table)
Constellation module
Reinforced nylon bag

EP4000 T-S HD C.I.

COFDM module for DVB-T digital measurements
QPSK/8PSK module for DVB-S/DVB-S2 digital measurements
MPEG4 + MPEG2 module with NIT (Network Information Table)
Constellation module
Common-Interface module
Reinforced nylon bag

LABGEAR DIGITAL & ANALOGUE TELEVISION ANALYSER

LABGEAR**DAT102**

Optimise test and measurement of complete Digital DVB-T and Analogue television reception systems. Useful in the field or a laboratory, from antenna alignment through MATV systems to broadcast.

DAT102 PROVIDES THE FOLLOWING MEASUREMENTS:

- Modulation Error Ratio (MER) total quality quantification.
- Bit Error Ratio (BER) before Viterbi corrector.
- Bit Error Ratio (BER) after Viterbi corrector.
- Damaged packet count, after Reed-Solomon corrector.
- Constellation diagram, a powerful signal evaluation tool.
- Lock signal sync. status indicates service found.
- Digital channel Signal Level in Channel Power.
- Analog channel Video and Audio Carrier Levels.
- Vision to Audio and Carrier to Noise ratios.
- Blind Scan Function for unknown translators or MATV.
- Li-Ion battery 3 hours autonomy.

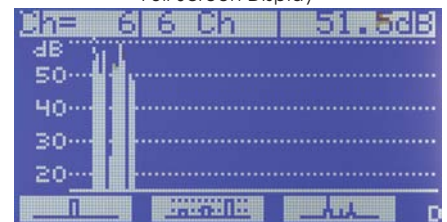
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Detailed Signal Level



Full Screen Display



Expanded Spectrum



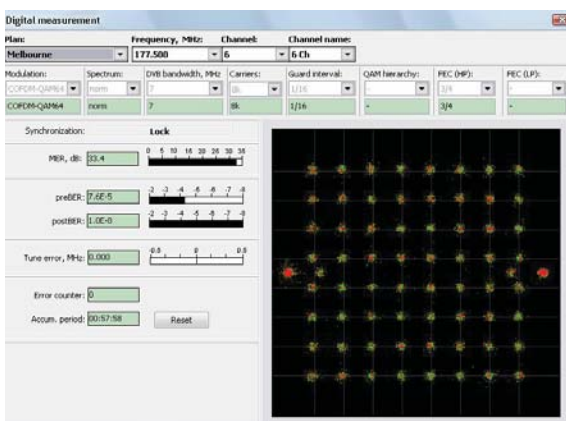
MER BER +



Constellation



DAT102 tools screen views include:



Instruments

LABGEAR DIGITAL SATELLITE ANALYSER

LABGEAR DAS202



Optimise adjustment and testing of complete Digital DVB-S2 Satellite television reception systems. Useful in the field or a laboratory, from dish pointing through SMATV systems to broadcast.

DAS202 PROVIDES THE FOLLOWING MEASUREMENTS:

- Modulation Error Ratio (MER) total quality quantification.
- Bit Error Ratio (BER) before & after Viterbi corrector.
- Bit Error Ratio (BER) before & after LDPC decoder.
- Constellation diagrams for QPSK and 8PSK.
- Lock signal sync. status indicates service found.
- Transponder Signal Level in Digital Channel Power.
- Frequency display of both Transponder Frequency (TF) and Intermediate Frequency (IF), simultaneously.
- LNB Local Oscillator (LO) frequency error in MHz.
- Unique Magnetic Compass identifies actual satellite location.
- MER or C/N selectable.

Unique Satellite Locator



Service Selected



Spectrum Display In Real Time



Alignment Level & Quality



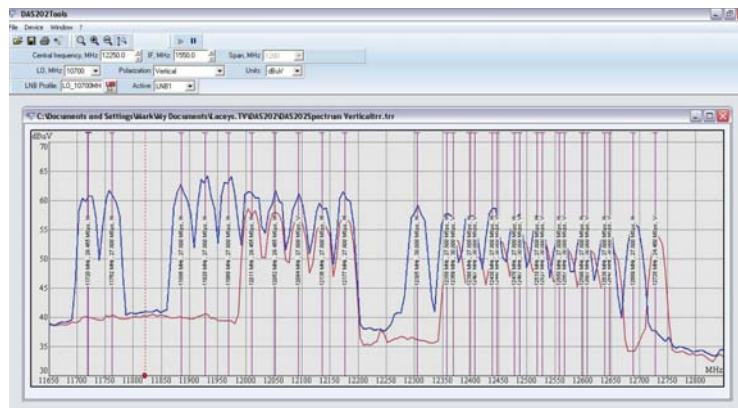
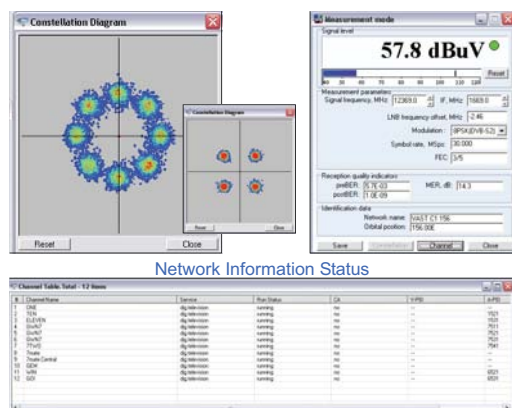
MER BER +



Constellation QPSK & 8PSK



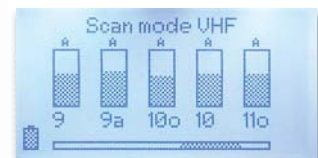
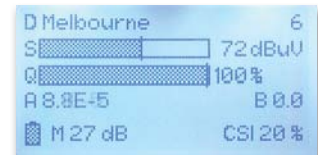
DAS202 tools screen views include:



MAXPEAK HANDHELD INSTRUMENTS



TAM for DVB-T Digital TV



REAL DIGITAL MEASUREMENTS



Features:

- TAM is easily operated by the unique touch wheel and intuitive interface
- Unnecessary complex menus are replaced with simple to read, real time measurements
- TAM is programmed via the Maxpeak website by simply selecting the transmitters in your area
- Blind scan function searches for signals within a distribution system, allowing for fast measurements
- Measurements include **DCP, pre and post Viterbi BER, MER and CSI quality**
- Includes inbuilt rechargeable Ni-MH battery with 4h run time
- Signal range: 30-100dBuV displayed in either dBuV or dBm
- Comfy hand held shape with soft protective cover
- Car charger included!

Instruments



SAM-PLUS



**Pre-programmed
for V.A.S.T**

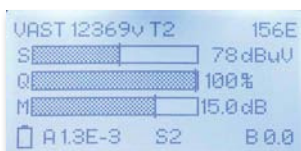
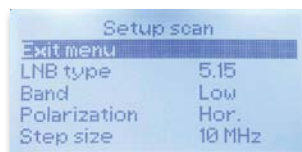
INSTANT SATELLITE LOCATOR

MEASUREMENTS INCLUDE:

DCP, PRE AND POST VITERBI
BER & MER



- QPSK DVBS / 8PSK DVBS-2 (HD)
- Simple and scientific measure modes selectable.
- Perfect for the Professional who wants accurate measurements and to work FAST!



FEATURES:

- SAM series fast satellite locators that measure true digital measurements
- Simply select the required satellite from the menu, ensures only the service required is found
- SAM PLUS is programmed via the Maxpeak website by selecting satellite or services required
- No need to know complicated satellite parameters
- Can be custom programmed via USB
- All measurements displayed on the one screen
- Blind scan function to lock unknown services.
- Includes inbuilt rechargeable Ni-MH battery with 4h run time
- Signal level range (DCP): 30–100dBuV displayed in either dBuV or dBm
- Comfy hand held shape with soft protective cover
- LNB output voltage and DiSEqC / 22KHz tone burst
- Maximum "peak" detections displayed for precise alignment
- Car charger included!



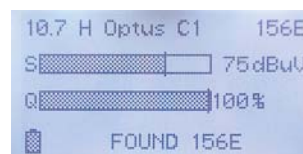
SAM-LITE



INSTANT SATELLITE LOCATOR



- QPSK DVBS
- Simple readings include satellite found, signal level (DCP) and signal quality.
- Perfect for the beginner or low level users!



Features:

- SAM series fast satellite locators that measure true digital measurements
- Simply select the required satellite from the menu, ensures only the service required is found
- SAM LITE is programmed via the Maxpeak website by selecting satellite or services required
- No need to know complicated satellite parameters
- Can be custom programmed via USB
- All measurements displayed on the one screen
- Includes inbuilt rechargeable Ni-MH battery with 4h run time
- Signal level range (DCP): 30–100dBuV displayed in either dBuV or dBm
- Comfy hand held shape with soft protective cover
- LNB output voltage and DiSEqC / 22KHz tone burst
- Maximum "peak" detections displayed for precise alignment
- Car charger included!

BUDGET INSTRUMENTS & ACCESSORIES

LABGEAR

SQ708



This has to be the easiest satellite meter to use ever!

LABGEAR SQ708 DIGITAL SATELLITE QUALITY METER

- 8 most popular satellite services pre-programmed
- Instrument will only "lock" on the service selected
- Each programmed service has the choice of 4 available LNBs
- Audible tone for eyes off alignment
- Signal strength and signal quality indicators
- Can be powered via a set top box or by supplied Li-Ion battery
- Handy wrist strap allows for hands free operation.

LABGEAR

SQ701



True Signal Quality Measurements!

LABGEAR SQ701 DIGITAL SATELLITE QUALITY METER

- Aurora and VAST satellite services pre-programmed
- Audible tone for eyes off alignment
- Signal quality and strength indicators
- Each service programmed ready for 2 common LNBs
- Powered by either battery or set top box

Satellite Finder



SF96C

- Compass attached accurately pinpoints direction
- Electronic Buzzer for audible tone
- Backlight enables use in low light
- Gain adjustable for accurate readings
- Horizontal / Vertical and 22KHz LED indicators
- Measures 950 – 2250MHz
- Line Powered, no batteries to replace

AITVF



TV SIGNAL FINDER FOR CARAVANS AND MOTOR HOMES

- Align your television antenna in a few seconds
- Simple and easy to use.
- LED's clearly indicate signal levels in dBµV steps of 10dB
- Compact and convenient shape that is easy to hold
- Internal battery, receiver or external power options
- Measures 5–862MHz
- Can be left connected for continuing signal indication

Angle Finder



INC01

Locate your satellite by inclination angle. Each satellite slot has a different elevation. Once known you can't miss! Magnetic base helps Angle Finder stay on your feed arm.

Instruments

TV SIGNAL METER LABGEAR



**A reliable meter that
masures signal level properly,
now less than \$150! +GST!**

TC870C

- Comfy hand held shape
- Measurement range 46-870 MHz
- TV and FM demodulation via loud speaker
- Channel plans include Australia, New Zealand and Australian CATV providers
- Measures in dBμV, dBm, dBmV
- Level accuracy +/- 1.5dB, range 30-115dBμV
- Direct entry of frequency and FM demodulation permits FM antenna alignments
- CATV Trunk-line voltage and C/N measurement
- Rechargeable internal Ni-MH battery with low level warning
- Includes a soft field bag with belt clip

OPTICAL POWER METER & LIGHT SOURCE

Robust handheld Optical Power meter and Light Source. Essential for checking power levels in Fibre Optic equipment. Attractive pricing puts Fibre measurements within the reach of most technicians.



OPM6010

Function	Optical Power Meter
Wavelengths:	850, 980, 1310 or 1550nm
Sensitivity / Output Power:	2-60 ~ dBm +10 dB
Uncertainty / Stability @ 20°C:	+ or - 5%
Optical interface:	FC adaptor
Detector / Emitter type:	InGaAs
Power supply:	9VDC rechargeable batt.
Auto OFF time:	10 minutes
Storage temperature:	-25 ~ +70 °C
Battery operating time:	28 hours
Weight:	250g
Dimensions:	150x76x26mm

OLS7315

Function	Optical Light Source
Wavelengths:	1310nm
Sensitivity / Output Power:	-6.5dBm +/- 0.5 dB
Uncertainty / Stability @ 20°C:	+ or - 0.05dB in 15 minutes + or - 0.10dB in 8 hours
Optical interface:	SC/APC adaptor
Detector / Emitter type:	Fabry-Perot LD
Power supply:	9VDC rechargeable batt.
Auto OFF time:	not applicable
Battery operating time:	8 hours
Weight:	160g
Dimensions:	150x74x25mm

NOISE GENERATORS



NG754X

Free standing with integrated attenuator and selectable 1KHz AM Modulation. Useful for checking Frequency Response, Return Loss (with P257 75Ω bridge), filter alignment etc. Internal battery simplifies sweeping entire TV systems with 1KHz square wave modulation to help identify signal.

Frequency Range:	45 – 2,000MHz
Output Level:	Equal to 77dBμV (-30dBm) on a 1MHz measurement bandwidth.
Attenuator:	0–30dB in 2dB steps.
Attenuator Accuracy:	±.5dB 45 to 1,000MHz ±1.5dB 1,000 to 2,000MHz.
Selectable AM Mod.:	1KHz ± 5% square wave
Attenuator Precision:	±1dB @ 0dB
Stability	± 2dB to ± 20°C
Output Impedance	75Ω
Connector:	BNC
Power:	12V DC 800mAh internal NiCad included, 18–24V DC via External supply / charger included
Field Case:	Included

UNAOHM

NG500



NG500

5–2300MHz Noise Generator — 75Ω High Output. Now you can sweep anything from a connector to an entire TV system! 80dBμV@1MHz rbw ±2dB over entire range. Includes case, mains power supply and space for optional battery pack, 12–16V DC @ 240mA.

INSTRUMENT BATTERIES & CHARGERS

BC75AC



BC75AC Replacement AC battery charger for Unaohm S22, T40a, C30 and S48.

BC75DC



BC75DC DC car charger for Unaohm S22, T40a, C30 and S48.

Replacement Batteries

BP3	Battery pack for TAM, SAM series.
BP4	Battery pack for the TC870, TC870B, TC870C.
BP5	Replacement battery for handhelds S22, T40a, C30 and S48.
BP6	Handheld external optional battery
BS1234	Unaohm battery, 12V 3.44Ah SLA
BS1272	Unaohm battery, 12V 7.2Ah SLA
BS14.4Li	Li-Ion battery for AP series

C20BAG



C20BAG Protective bag for Unaohm S22, T40a, C30 and S48. Genuine Unaohm, keep the feeling!

TECHNICAL INFORMATION

AUSTRALIAN TV CHANNEL DESIGN & LIMITS

Band	Channel	Vision	1st Sound	Limits	Cent. Freq.
VHF	0	46.25	51.75	45-52	48.5
1	1	57.25	62.75	56-63	59.5
	2	64.25	69.75	63-70	66.5
VHF	3	86.25	91.75	85-92	88.5
2	4	95.25	100.75	94-101	97.5
	5	102.25	107.75	101-108	104.5
	5A	138.25	143.75	137-144	140.5
VHF	6	175.25	180.75	174-181	177.5
3	7	182.25	187.75	181-188	184.5
	8	189.25	194.75	188-195	191.5
	9	196.25	201.75	195-202	198.5
	9A	203.25	208.75	202-209	205.5
	10old	209.25	214.75	208-215	211.5
	10new	210.25	215.75	209-216	212.5
	11old	216.25	221.75	215-222	218.5
	11new	217.25	222.75	216-223	219.5
	12	224.75	229.75	223-230	226.5
Band	Channel	Vision	1st Sound	Limits	Cent. Freq.
UHF	28	527.25	532.75	526-533	529.5
4	29	534.25	539.75	533-540	536.5
	30	541.25	546.75	540-547	543.5
	31	548.25	553.75	547-554	550.5
	32	555.25	560.75	554-561	557.5
	33	562.25	567.75	561-568	564.5
	34	569.25	574.75	568-575	571.5
	35	576.25	581.75	575-582	578.5

- New channel 10 and 11 services will be placed +1MHz.
- Digital services can be offset +125KHz from centre channel.
- Stereo sub-carriers +242KHz from 1st Audio carrier.
- No new television services for channels 3, 4, 5, or 5A.

Band	Channel	Vision	1st Sound	Limits	Cent. Freq.
UHF	36	583.25	588.75	582-589	585.5
5	37	590.25	595.75	589-596	592.5
	38	597.25	602.75	596-603	599.5
	39	604.25	609.75	603-610	606.5
	40	611.25	616.75	610-617	613.5
	41	618.25	623.75	617-624	620.5
	42	625.25	630.75	624-631	627.5
	43	632.25	637.75	631-638	634.5
	44	639.25	644.75	638-645	641.5
	45	646.25	651.75	645-652	648.5
	46	653.25	658.75	652-659	655.5
	47	660.25	665.75	659-666	662.5
	48	667.25	672.75	666-673	669.5
	49	674.25	679.75	673-680	676.5
	50	681.25	686.75	680-687	683.5
	51	688.25	693.75	687-694	690.5
	52	695.25	700.75	694-701	697.5
	53	702.25	707.75	701-708	704.5
	54	709.25	714.75	708-715	711.5
	55	716.25	721.75	715-722	718.5
	56	723.25	728.75	722-729	725.5
	57	730.25	735.75	729-736	732.5
	58	737.25	742.75	736-743	739.5
	59	744.25	749.75	743-750	746.5
	60	751.25	756.75	750-757	753.5
	61	758.25	763.75	757-764	760.5
	62	765.25	770.75	764-771	767.5
	63	772.25	777.75	771-778	774.5
	64	779.25	784.75	778-785	781.5
	65	786.25	791.75	785-792	788.5
	66	793.25	798.75	792-799	795.5
	67	800.25	805.75	799-806	802.5
	68	807.25	812.75	806-813	809.5
	69	814.25	819.75	813-820	816.5

AMPLIFIER MAX. OUT. & RULES OF THUMB

As more channels are amplified, an amplifier's maximum output level must be reduced to stop intermodulation products reducing picture quality. Broadband amplifiers are usually rated for maximum output with 2 equal channels of say 108dBμV. This is the figure to reduce according to the number of TV channels being amplified. Count 88-108MHz band 2 F.M. radio as 1 channel unless it is 10dB or more below the TV levels.

No. of channels	1	2	3	4	5	6
Reduction indB	0	3	4.5	6	7	7.5

No. of channels	2	3	4	5	6	7	8	9	10
Reduction indB	0	2.5	3.5	4.5	5	5.5	6	6.5	7

Example: Using an amplifier with a manufacturers maximum output rating of 108dBμV when amplifying 8 equal channels, the second amplifier should have it's maximum output level calculated $108 - (6 \times 3) = 99\text{dB}\mu\text{V}$

The noise an amplifier generates adds to the total noise in a system, so the maximum output level must be further reduced according to the number of amplifiers being used.

RETURN LOSS

Antenna systems work best when the impedance is the same at all points in the system. Impedance variations introduce signal reflections that reduce the efficiency of the distribution system. This reflected signal meets signal travelling in the opposite direction, causing standing waves. Measured standing waves are known as Return Loss. It is the same as Voltage Standing Wave Ratio, abbreviated to V.S.W.R., or S.W.R.

Poor Return Loss reduces signal quality and can be caused by any component in the distribution system.

An ideal V.S.W.R. is 1:1 where no power is reflected, but this is seldom attained. In practice 1.5:1 is more common, with 2:1 an acceptable limit. Return Loss or VSWR is an important factor in delivering Digital TV with the least possible reduction in Signal Quality between the Antenna and the Wall Socket.

RETURN LOSS = VSWR TABLE

dB RL	2	6	10	14	18	22	26	30	34	38	46
VSWR	8.7	3.0	1.9	1.5	1.3	1.2	1.1	1.07	1.04	1.03	1.01

TYPICAL COAXIAL CABLE LOSSES DB PER 100M

@20°C ±1.8%/10°C							
MHz	55	211	350	550	870	1000	1750
RG59	6.18	11.79	15.22	19.36	24.75	26.54	35.81
RG6	4.94	9.43	12.2	15.62	19.99	21.46	28.66
RG11	3.12	5.95	7.74	9.88	12.8	13.88	19.51

TRANSMITTED VISION TO SOUND RATIOS

1st sound (L and R) -13dB from vision , 2nd (2xR) -20dB.

SUGGESTED ANALOGUE VISION SIGNAL LEVELS

Antenna delivers:	
35dBµV	Poor picture, must be masthead amplified.
45dBµV	Can be 100% with low noise masthead amplified.
55dBµV	Not quite enough for 1 set, distribution amplified. OK.
65dBµV	O.K. for 2-4 sets if splitter and cable quality good.
Arriving at the set:	
55dBµV	Recommended minimum, allows for rain fade.
65dBµV	Recommended for best picture quality.
75dBµV	Recommended maximum signal level.
85dBµV	Too much signal, tuner overload possible.

MEASURING DIGITAL TELEVISION SIGNALS

Buying an instrument for Digital has to be more than a hit or miss affair. Yet, based on some of the information available, it can be little more than a lucky dip.

What is it you want to measure?

Digital Channel Power, Bit Error Ratio, Modulation Error Ratio or Reflections?

Judging Digital TV Signal Quality by viewing pictures can deceive. With perfect pictures, total loss of service can be close at hand! Forward Error Correction works continuously in digital transmission systems to keep received picture quality perfect. FEC makes field Signal Quality measurements not just possible, but more important than signal level measurements!

Bit Error Ratios are perhaps the most useful quality measures of a Digital data stream, complicated by the need for 3 additional measurements before a full Signal Quality position is clearly understood (MER, RU & CSI). The narrow measurement range between high and low signal qualities makes it a demanding measurement of Installer Field Signal Meters. Digital Channel Power is the measure of digital signal level with no indication of Signal Quality. DCP is difficult to measure properly on an Analogue Signal Meter.

Reflections actually help Digital TV, but there are limits to what receivers can handle. By seeing the reflections on an Adaptive Equalizer Response (AER) display, the antenna can be positioned to ensure reflections are not likely to degrade reception. Uniaohm's AER function is helpful in obtaining the most stable Digital signal and is particularly helpful with Single Frequency Networks. AER displays echo values across time and distance, showing strength and when signals are outside the Guard Band and most likely to contribute to picture instability.

Laceys.tv sells and supports a very broad range of TV Signal meters from some of the worlds best known manufacturers. Talk to us about your Digital TV measurement needs.

AUSTRALIAN TELEVISION RE-STACK CHANNEL BLOCKS

174MHz		Block A		230MHz	
Channels:	6	7	8	9	9A 10 11 12
526MHz		Block B		568MHz	
Channels:	28	29	30	31	32 33
568MHz		Block C		610MHz	
Channels:	34	35	36	37	38 39
610MHz		Block D		652MHz	
Channels:	40	41	42	43	44 45
652MHz		Block E		694MHz	
Channels:	46	47	48	49	50 51

It is proposed that digital TV broadcast channels will be re-arranged in the channel groups above, shortly after switchover is completed.

As the national plan is complex and some details are yet to be finalized, the latest details of the plans can be found at http://www.acma.gov.au/WEB/STANDARD.PC/pc=PC_312417.

Narrow bandwidth antennas for each block are identified by the colours above, and show on page 9, 12, 13, 15, 16 and 17.

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Mounting Brackets & Cabinets

LED/LCD/PLASMA BRACKETS

LCD SWIVEL BRACKETS



LCD113

LCD bracket 1 point swivel arm tilts $\pm 15^\circ$. For ~14" to 24" panels. Up to 15kg panel weight. 75mm and 100mm VESA mounting holes.



LCD112

LCD bracket 2 point swivel arm tilts $\pm 15^\circ$. Supports up to 15kg panel weight with 75mm and 100mm VESA mounting holes.



LCD111

LCD bracket 3 point swivel arm tilts $\pm 15^\circ$. Supports up to 15kg panel weight with 75mm and 100mm VESA mounting holes.



LCD501A

LCD bracket 1 point swivel arm tilts $\pm 20^\circ$. For ~10" to 30" panels. Up to 30kg panel weight. 200mm, 100mm, 75mm or 50mm VESA mounting holes.



LDA03-110

LCD bracket 1 point swivel arm with $\pm 20^\circ$ tilt and $\pm 10^\circ$ pivot. Up to 15kg panel weight for 13"-23" panels. 75mm and 100mm VESA mounting holes.



LDA03-112

LCD bracket 2 point swivel arm with $\pm 20^\circ$ tilt and $\pm 10^\circ$ pivot. Up to 15kg panel weight for 13"-23" panels. 75mm and 100mm VESA mounting holes.



LDA03-113

LCD bracket 3 point swivel arm with $\pm 20^\circ$ tilt and $\pm 10^\circ$ pivot. Up to 15kg panel weight for 13"-23" panels. 75mm and 100mm VESA mounting holes.



LDA03-220

LCD bracket 1 point swivel arm with $\pm 20^\circ$ tilt and $\pm 10^\circ$ pivot. Up to 20kg panel weight for 17"-37" panels. 75mm, 100mm and 200mm VESA mounting holes.

Mounting Brackets & Cabinets



LDA03-222

LCD bracket 2 point swivel arm with $\pm 20^\circ$ tilt and $\pm 10^\circ$ pivot. Up to 20kg panel weight for 17"-37" panels. 75mm, 100mm and 200mm VESA mounting holes.



LDA03-223

LCD bracket 3 point swivel arm with $\pm 20^\circ$ tilt and $\pm 10^\circ$ pivot. Up to 20kg panel weight for 17"-37" panels. 75mm, 100mm and 200mm VESA mounting holes.



LCD201

LCD bracket super Low Profile for 13"-23", only 18mm deep. 2 piece bracket, with lock screws. Up to 30kg panel weight. 50mm, 75mm and 100mm VESA mounting holes. TV to wall 15mm.



LCD201L

LCD bracket super Low Profile, only 18mm deep. 2 piece bracket, with lock screws. Up to 35kg panel weight. 50mm, 75mm, 100mm or 200mm VESA mounting holes. TV to wall 18mm.



LCDUCM

LCD under cabinet mount. Gliding arm swings screen up and away when not in use. Swivels for multiple viewing angles. Up to 8kg panel weight. 100mm, 75mm or 50mm VESA mounting holes. Tilt range 100° , swivel range 250° .

Mounting Brackets & Cabinets

LED/LCD/PLASMA FLAT MOUNTING BRACKETS



PLB17

Plasma/LCD bracket for 23"–37" panels weighing up to 75kg. 30mm Low Profile bracket depth. Accommodates panel mountings up to 475mmW x 325mmH.



PLB13

Plasma/LCD bracket for 30"–63" panels weighing up to 75kg. 30mm Low Profile bracket depth. Accommodates panel mountings up to 780mmW x 470mmH.



PLB13L

Plasma LCD bracket for 30"–65" panels weighing up to 75kg. 30mm Low Profile bracket depth. Accommodates panel mountings up to 870mmW x 470mmH.



LP10-44F

LCD/LED fixed wall mount for 23"–42" panels weighing up to 50kg. 26mm low profile bracket depth. Accommodates panel mountings up to 410mmW x 420mmH.



LP10-46F

LCD/LED fixed wall mount for 32"–60" panels weighing up to 50kg. 26mm low profile bracket depth. Accommodates panel mountings up to 610mmW x 420mmH.



LP10-46F

LCD/LED fixed wall mount for 37"–63" panels weighing up to 50kg. 26mm low profile bracket depth. Accommodates panel mountings up to 810mmW x 420mmH.

Mounting Brackets & Cabinets

LED/LCD/PLASMA TILT MOUNTING BRACKETS



PLB18

Plasma/LCD bracket for 23"–37" panels weighing up to 75kg. Tilts to -15°. 80mm bracket depth. Accommodates panel mountings up to 460mmW x 335mmH.



PLB14

Plasma/LCD bracket for 30"–63" panels weighing up to 75kg. Tilts to -15°. 80mm bracket depth. Accommodates panel mountings up to 750mmW x 470mmH.



PLB5

Plasma/LCD bracket for 30"–63" panels weighing up to 75kg. Tilts to $\pm 15^\circ$. 72mm bracket depth. Accommodates panel mounts up to 775mmW x 505mmH. Lockable against theft.



PLB42

LCD/LED low profile bracket for 23"–37" panels weighing up to 75kg, $\pm 10^\circ$ tilt, 46mm mounting depth. Accommodates panel mountings up to 410mmW x 234mmH.



PLB43

LCD/LED low profile bracket for 37"–64" panels weighing up to 75kg. Tilts to -10°. 46mm mounting depth. Accommodates panel mountings up to 810mmW x 410mmH.



LPA13-444

Plasma/LCD/LED full motion mounting brackets for 23"–42" panels weighing up to 45kg. Cantilever arm provides $\pm 60^\circ$ lateral rotation. Extend from 12–51 cm, tilts to $\pm 15^\circ$, panel mountings 426mmW x 464mmH.

Mounting Brackets & Cabinets

LCD/PLASMA CEILING MOUNT BRACKETS



PLBCE3D

Back to back 2 panel ceiling mount. Adjusts from 1050mm to 1620mm. Up to 80kg weight capacity, includes cable concealment. PLB13, PLB13L, PLB14, PLB17 or PLB18 required to use this product.

PLBCE3

LCD ceiling mount for a larger panel. Adjusts from 870mm to 1560mm. Up to 80kg weight capacity, swivels 360°. Includes cable concealment. PLB13, PLB13L, PLB14, PLB17 or PLB18 required to use this product.



LCD504A

LCD ceiling mount for ~10" to 31" panel. Drop adjusts from 500mm to 850mm. 190° horizontal and 20° vertical tilt. Up to 30kg weight capacity. Includes cable concealment. 200mm, 100mm, 75mm or 50mm VESA mounting holes.

LCDCE5

LCD ceiling bracket, 870-1560mm adjustment, with cable concealment. Up to 30kg weight capacity. 200mm, 100mm, 75mm or 50mm VESA mounting holes.

LED/LCD/PLASMA PULL OUT MOUNTING BRACKETS



PLBWA3A

Pull out elbow bracket to suit PLB13/14/17/18. Holds up to 75kg.

Includes 2 x 650mm 4.4mm thick Wall Mounting Bars punched for ~45, 52 and 60cm stud distances.



PLBWA6

LCD wall mount for 30"-63". Up to 75kg panel weight. 130mm to 300mm profile bracket depth. Rotates +/-45° with +/-15° tilt. Accommodates panel mountings up to 800mmW x 480mmH.



PLBWA7

LCD wall mount for 23"-37". Up to 75kg panel weight. 130mm to 300mm profile bracket depth. Rotates +/-45° with +/-15° tilt. Accommodates panel mountings up to 500mmW x 330mmH.



LCD-WA3

Pull out elbow bracket for LCD/LED panels 17"-37", max VESA 200x200mm.

Mounting Brackets & Cabinets



LED024

Low profile LED/LCD TV mounting brackets to suit 23"-37". Easy mounting design with universal mounting pattern.

Max Vesa: 400x400mm Max Weight: 50kg
TV-wall: 14.5mm Colour: Black

LED026

Low profile black bracket to suit 32"-50". Easy mounting design with universal mounting pattern.

Max Vesa: 600x600mm Max Weight: 50kg
TV-wall: 14.5mm Colour: Black

LED028

Low profile black brackets to suit 32"-63". Easy mounting design with universal mounting pattern.

Max Vesa: 800x800mm Max Weight: 50kg
TV-wall: 14.5mm Colour: Black



LED048

LED048

Ultra slim LED TV mounting brackets to suit 42"-70".

Max Vesa: 800x800mm Max Weight: 50kg
TV-wall: 24.5mm Colour: Black

LED058

Ultra low profile LED TV mounting brackets to suit 42"-70".

Max Vesa: 800x800mm Max Weight: 50kg
TV-wall: 14.5mm Colour: Black



LPF344

LPF324

Ultra slim black low profile bracket to suit 23"-37".

Mounting holes: 420mmW x 220mmH Max Weight: 45kg
TV-wall: 8mm Colour: Black

LPF344

Ultra slim black low profile bracket to suit 32"-42".

Mounting holes: 420mmW x 410mmH Max Weight: 55kg
TV-wall: 8mm Colour: Black

LPF348

Ultra slim black low profile bracket to suit 32"-63".

Mounting holes: 810mmW x 410mmH Max Weight: 65kg
TV-wall: 8mm Colour: Black

MISC. BRACKETS

PROJECTOR BRACKETS



PRB1

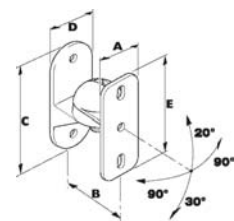
Projector bracket with 80mm x 150mm ceiling spacing tube. Suits up to 10kg projector weight. (Optional 300mm ceiling spacing tube available)



PRB2

Projector bracket with adjustable tube. 430-650mm with cable concealment. Suits up to 20kg projector weight.

SPEAKER BRACKETS



A = 40mm
B = 67mm
C = 90mm
D = 45mm
E = 80mm

BM-SXS

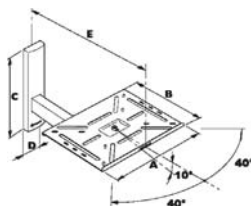
Black speaker brackets, 1 x pair. Wall hanging boxed presentation pack.

BM-S50S

Silver speaker brackets, 1x pair. Clear wall hanging boxed presentation pack.

Mounting Brackets & Cabinets

MELICONI PREMIUM TELEVISION MOUNTING BRACKETS



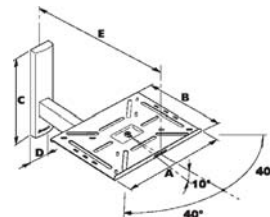
A = 500mm
B = 300mm
C = 260mm
D = 75mm
E = 560mm

BM-MB

Black medium fixed TV wall bracket. Suits televisions of approx. 51-63cm diag. screen size and up to 30kg weight.

BM-MS

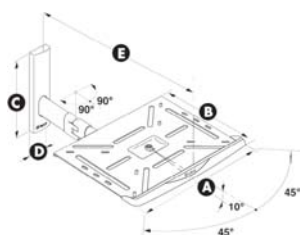
Silver medium fixed TV wall bracket. Suits televisions of approx. 51-63cm diag. screen size and up to 30kg weight.



A = 500mm
B = 300mm
C = 260mm
D = 75mm
E = 560mm

BM-MRB

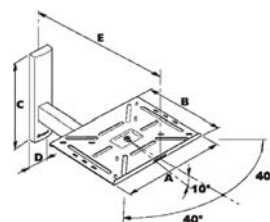
Black medium rotating TV wall bracket. Suits televisions of approximately 43-53cm diag. screen size and up to 25kg weight.



A = 507mm
B = 324mm
C = 275mm
D = 75mm
E = 641mm

BM-R25S

Silver large rotating TV wall bracket. Suits televisions of approximately 51-63cm diag. screen size and up to 40kg weight.



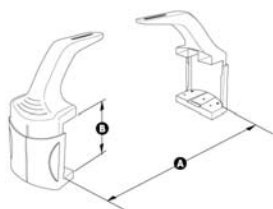
A = 330mm
B = 250mm
C = 260mm
D = 75mm
E = 400mm

BM-SEB

Black small fixed TV wall bracket. Suits televisions of approximately 35-48cm diag. screen size and up to 25kg weight.

BM-SES

Silver small fixed TV wall bracket. Suits televisions of approximately 35-48cm diag. screen size and up to 25kg weight.



A = 300mm to 460mm
B = 75mm to 130mm

BM-VCRB

Black adjustable DVD, Receiver or VCR etc. mount. Fits below any of the above brackets.

BM-VCRS

Silver adjustable DVD, Receiver or VCR etc. mount. Fits below any of the above brackets.

Tech tip: TV wall brackets can also be used to mount DVD, set top box, games console etc underneath your wall mounted plasma/LCD tv.

Mounting Brackets & Cabinets

CABINETS

19 INCH WALL CABINETS

Present your workmanship in handsome all steel Cabinets. Doors and Panels key lock to reduce unauthorized access. Larger cabinets ship complete, knocked down. Doors fitted with clear tough laminated glass. Attractive pricing for fully featured cabinets. Ready for up to 4 x 12cm exhaust fans. Range of Shelves, Blanking, Brush and Recess Panels and accessories stocked. Superior 2 pack Powder Coat finish. Available in Black or computer beige.



CAB194506 6u wall cabinet, lockable. 600 x 450mm.

CAB194509 9u wall cabinet, lockable. 600 x 450mm.



CAB194512 12u wall cabinet, lockable. 600 x 450mm.

CAB194515 15u wall cabinet, lockable. 600 x 450mm.

19 INCH FLOOR STANDING CABINETS



CAB196025



CAB196042

CAB196020 20u floor standing cabinet, lockable. 600 x 600mm.

CAB196025 25u floor standing cabinet, lockable. 600mm deep.

CAB196030 30u floor standing cabinet, lockable. 600mm deep.

CAB196035 35u floor standing cabinet, lockable. 600mm deep.

CAB196042 42u floor standing cabinet, lockable. 600mm deep.

CAB196046 46u floor standing cabinet, lockable. 600mm deep.

CAB198042 42u floor standing cabinet, lockable. 800mm deep.

Cabinets available in black and computer beige.

Larger cabinets include:

2 x shelves, 2 x fans and 2 Cable Management racks.

Mounting Brackets & Cabinets

OPEN WALL CABINETS



CAB193002W 2u open wall cabinet 300mm deep, white.

CAB193003W 3u open wall cabinet 300mm deep, white.

CAB193004W 4u open wall cabinet 300mm deep, white.

CAB193006W 6u open wall cabinet 300mm deep, white.

CABINET SHELVES



CAB1945SH

CAB1960SH

CAB1960SS

CAB194U440SH



CAB19445SH Cabinet wall shelf, 290mm deep x 490mm wide.

CAB1960SH Floor cabinet fixed equipment shelf, 465mm deep x 290mm wide.

CAB1960SS Floor cabinet vented sliding shelf, 380mm deep x 445mm wide. <30kg load, 3 stage sliders pull out fully for easy equipment access.

CAB192U440SH 2u cantilever shelf, 445mm deep x 400mm wide.

CAB194U440SH 4u cantilever shelf, 445mm deep x 400mm wide.

CABINET ACCESSORIES



CAB19CFAN



CAB19CAST



CAB19BR1U

CAB19BR1U Black brush panel.

CAB19CFAN 240w cooling fan.

CAB19CAST Individual castors for floor standing cabinets.



CAB19CMR1 Cable management rack.



CMCP13 Cable Management rail for 19" data/distribution cabinets, 13 finger.



PATCHCAT5E24 CAT5e 24 port data patch panel.

PATCHCAT624 CAT6 24 port data patch panel.



CAB19BP/..

CAB19BP05 1/2u blanking panel.

CAB19BP1U 1u blanking panel.

CAB19BP2U 2u blanking panel.

CAB19BP3U 3u blanking panel.

CAB18BP4U 4u blanking panel.



CAB19RP6U

CAB19RP2U 2u recessed panel.

CAB19RP4U 4u recessed panel.

CAB19RP6U 6u recessed panel.

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MATV, SMATV & CCTV

FRACARRO K SERIES

SINGLE CHANNEL AMPLIFIERS

Flexible and highly selective modular headends that are easy to install. Mounting on a standard DIN Rail you can assemble a scalable headend with a local power supply. Fracarro K Series headends represent excellent value for money and uncompromising quality.



FRACARRO

KF

Excellent selectivity allows the distribution of adjacent channels. 5 resonant circuit filters (4 for UHF). Gain +9dB VHF +11dB UHF (adj. -45dB VHF, -35 dB UHF). Maximum output level 95dB μ V. Ideal for medium MATV distribution systems.

Tech Tip:

Combine with KW series final push pull amplifiers for a low cost true single channel solution with high output signal level.



FRACARRO

K120

Ideal for all sizes of MATV distribution systems. Excellent selectivity allows the distribution of even adjacent channels. 5 resonant circuit filters. Gain +45dB (adj. -40dB VHF, -30dB UHF). Maximum output level 120dB μ V.



FRACARRO

K120A

Suits MATV distribution systems where input signal levels vary. Automatic Gain Control provides a constant output level, helpful with fluctuating off air signal levels, driving networks with amplifiers in cascade and Fibre Optic networks. Excellent selectivity even allows regulation of adjacent channels thanks to 5 resonant circuit filters. Gain +45db, maximum output level 120dB μ V adjustable. Wide 30dB AGC dynamic range (+/-15dB).

BAND SELECTIVE AMPLIFIERS

Low cost whole band band amplifiers from Fracarro, with excellent flatness, high out of band rejection and channel traps.



FRACARRO

KF/B3

All Band 3 (174-230MHz) amplifier. Gain +30dB (adj. -20dB). Maximum output level 100dB μ V. 3 tuneable channel traps to equalise input channels or eliminate unwanted channels. Excellent in band flatness with high out of band rejection.

KF/B4

All Band 4 (470-590MHz) amplifier. Gain +13dB (adj. -20dB). Maximum output level 100dB μ V. 3 tuneable channel traps to equalise input channels or eliminate unwanted channels. Compatible with KF series single channel amplifiers.

KF/B5

All Band 5 (606-862MHz) amplifier. Gain +11dB (adj. -20dB). Maximum output level 100dB μ V. 3 tuneable channel traps to equalise input channels or eliminate unwanted channels. Compatible with KF series single channel amplifiers.

KF/BU

All Band 4 and Band 5 (470-862MHz) amplifier. Gain +30dB (adj. -20dB). Maximum output level 100dB μ V. 3 tuneable channel traps to equalise input channels or eliminate unwanted channels. Compatible with KF series single channel amplifiers.

MATV, SMATV & CCTV

LAUNCH AMPLIFIERS



FRACARRO

- KW33B** 116dBμV maximum output level. Gain +34dB (adj. -20dB). Full band output including S Band.
- KW33C** 120dBμV maximum output level. Gain +32dB (adj. -20dB). Full band output including S Band. Slope adjustment 0-20dB.
- KW44C** 120dBμV maximum output level. Gain +44dB (adj. -20dB). Full band output including S Band. Slope adjustment 0-20dB.
- KW35E** 129dBμV maximum output level. Gain +35dB (adj. -20dB). Full band output including S Band. Slope adjustment 0-20dB. Passive 5-30MHz Return Path included.

K series filter or processor broadband launch amplifiers.



FRACARRO

- KX125** Satellite 1st IF launch amplifier. 125dBμV maximum output level, Gain +38dB@950MHz +44dB@2,150MHz sloped gain (adj. -20dB), .

CHANNEL PROCESSOR



FRACARRO

KCP

Fully agile Channel Processor for Digital and Analogue channels. VHF and UHF input with fully agile output. Double SAW filters for high selectivity. Automatic Gain Control facility to maintain stable output level.

CHANNEL CONVERTER



FRACARRO

KK Series

Pre-programmed converters for the conversion of either band 1, channel 7, channel 9 or channel 10 to UHF. Output channel adjustable in 250 KHz steps with KTP programmer, input filters factory fixed. Use with KF/...K120/.. or K120A/.. to filter output.

MATV, SMATV & CCTV

DIGITAL TO ANALOGUE MODULATORS



DVB-T
TERRESTRIAL
TO
PAL

FRACARRO

KDTR-S

Receives a digital multiplex and converts one service into an analogue channel. Ideal for medium to large distribution systems such as motels, hotels or hospitals with analogue TVs. Full band modulator distributes signals from 47-862MHz. VSB modulator allows adjacent channel distribution. RCA connectors with audio/video signal available on all versions.

KDTS/VL-C2

Converts digital satellite signals to more robust QAM for distribution around a cable system. CA transparent. Set up with KTP programmer. Max output level 90dBμV.



DVB-S
SATELLITE
TO
PAL

FRACARRO

KDF

Highly stable Free To Air DVB-S QPSK receiver. Symbol rates from 2-35 MS/s for receiving SCPC and MCPC signals. Automatic PID update ensures A/V synchronisation and reduces service calls for broadcaster parameter changes. Modulator for VHF and UHF output.

KDFU

Highly stable Free To Air DVB-S QPSK receiver. Symbol rates from 1-45MS/s for receiving MPEG2 signals. UHF output modulator.

VSB MODULATORS

VSB modulators suitable for adjacent channels distribution. Very clean output ideal for medium to large headends.



FRACARRO

KMS

Modulator stereo VHF/UHF VSB modulator, full band output (47-862MHz) with true Stereo. S band included. Suitable for adjacent channel distribution. Output level 90dBμV (adj. -15dB via TPE). RCA audio and video input connectors. Mechanical electrical and RF compatibility with KF and K120 series single channel amplifiers.

KCMU

Modulator mono UHF VSB modulator, all UHF band output (470-862MHz). Output level 90dBμV (adj. -15dB via TPE). RCA audio and video input connectors. Mechanical electrical and RF compatibility with KF and K120 series single channel amplifiers.

KCMU/S

Modulator stereo UHF VSB modulator, all UHF band output (470-862MHz) with true Stereo. Suitable for adjacent channel distribution. Output level 90dBμV (adj. -15dB via TPE). RCA audio and video input connectors. Mechanical electrical and RF compatibility with KF and K120 series single channel amplifiers.

KCMV/S

Modulator stereo VHF VSB modulator all VHF band output (174-382MHz) with true Stereo. Suitable for adjacent channel distribution. Output level 90dBμV (adj. -15dB via TPE). RCA audio and video input connectors. Mechanical electrical and RF compatibility with KF and K120 series single channel amplifiers.

LNB POWER SUPPLIES



FRACARRO

K1-2

LNB power supply and 1st IF splitter, 14V or 18V DC @ up to 250mA and 22KHz tone. at 2 outputs @-5dB. 12V DC@500mA.

K2-8

Twin LNB power supply and active splitter. Divides signals from 2 LNB inputs four ways, 0dB insertion loss. Provides 14V or 18V LNB supply and 22KHz tone. 12V DC@620-750mA.

MATV, SMATV & CCTV

POWER SUPPLIES



KP15

FRACARRO

- KP15** 1.5 Amps 12V DC, 240V AC Mains power supply. 23W Max.
- KP35** 3.5 Amps 12V DC, 240V AC Mains power supply. 55W Max.
- KP62** 6.2 Amps 12V DC, 240V AC Mains power supply. 87W Max.

ACCESSORIES

FRACARRO



KA600

KA600

Mounting cabinet 600mm high x 500mm wide x 180mm deep. Key locked, well ventilated, beige in colour. Rear panel DIN rail ready. A better box, easy to install.

KA800

Mounting cabinet 800mm high x 500mm wide x 180mm deep. Key locked, well ventilated, beige in colour. Rear panel DIN rail ready. A better box, easy to install.



KD100

Standard DIN mounting rail. Variable length. 35mm x 15mm x 1.5mm. Mounts all K series modules. Length cut to size.



KPN42



KRF15

FRACARRO

- KPN42** 42mm F type interconnect bridge.
- KRF15** 150mm Quick F shielded interconnect lead.
- KRF45** 450mm Quick F shielded interconnect lead.



FRACARRO

TPE

Universal Fracarro programmer. Numeric key pad and graphic display, easy to use.

MATV, SMATV & CCTV

DIGITAL TO ANALOGUE CONVERSION

CompactLine headends for the reception and analogue distribution of 6 digital terrestrial or satellite channels. The 6 digital channels are remodulated into RF with stereo combined into a single output. A one box solution.



COMPACT LINE
FRACARRO

DVB-T
TERRESTRIAL
TO
PAL

SIG9606S

Compact Line headend for the remodulation of 6 Digital Terrestrial channels into 6 high quality analogue terrestrial channels. Ideal solution for the distribution of FTA terrestrial channels in hotels, motel, aged care facilities, MDUs or any location with analogue TVs.

- Easy to install, everything included in one box
- Power Supply
- 6 COFDM receivers
- A/V DSB modulators 174-446MHz, 470-862 MHz
- Combiner with existing TV signal mixing, mixes 6 RF channels
- Powerful 100dBuV output level with separate adjustment
- DSB Full Band modulator to remodulate programs into UHF & VHF band
- Software available to set headend using PC
- Possibility to upgrade the firmware on site via PC
- Heat dissipation by natural convection, no fans required



COMPACT LINE
FRACARRO

DVB-S
SATELLITE
TO
PAL

SIG9506S

Compact Line headend for the remodulation of 6 Digital Satellite channels into 6 high quality analogue terrestrial channels. Ideal solution for the distribution of FTA satellite channels in hotels, motel, aged care facilities, MDUs or any location with analogue TVs.

- Front panel control or via TPE
- A/V DSB modulators, 470-862MHz.
- Includes 6 QPSK receivers, 6 A/V modulators, 6-way combiner with existing TV signal mixing, power supply and programming unit.
- A/V on RCA output for connections of external decoder.
- Programmable and upgradable via PC.
- Heat dissipation by convection, no fans required.

MyM PRO 6T Micro Headend

DVB-T
TERRESTRIAL
HD
TO
PAL



a2b

MyM PRO is a professional headend for the conversion of 6 digital channels from 4 digital terrestrial multiplexes. MyM PRO is a wall mounted product that combines ease of use, cost efficiency and high performance — all in one box.

- 4 COFDM Receivers(two separate inputs)
- Double Ethernet — RJ45 ports
- MPEG2 / MPEG4 h.264AVC decoding for 6 HD or SD digital channels with HD-downscaling
- 4 Common Interface slots for Multi-decryption
- A/V DSB modulators, 160-862MHz with loop through of VHF/UHF/FM, NICAM and A2 Stereo.
- AV output for VSB modulators or monitoring
- Built in high quality fan for cooling

MATV, SMATV & CCTV

DIGITAL MODULATION

Laceys.tv is proud to offer a revolutionary range of new products for digital modulation. As the pace towards digital switchover increases, the range of market requirements and opportunities opens up to digital solutions. Products from established European manufacturers such as A2B Electronics and Fracarro offer a new level of innovation, flexibility and picture quality.

A2B ELECTRONICS — QPSK & COFDM PROCESSORS

a2b

ESX-200



ESX-200 combines a QPSK / 8PSK tuner and ASI input with a wide choice of outputs including COFDM, IP, ASI, QAM and analogue. The product has Common Interface for decryption and allows you to build your own multiplexes with the inbuilt remultiplexing function. The tuner also handles ASI input so you can combine ASI streams or AV inputs from up to 4 set top boxes / DVD players / PCs (see DCC200 pg. 120) and DCC210 pg. 122 with satellite TV content into a single terrestrial multiplex.

- 1 x ESX-200 will generate at least 6 digital terrestrial channels
- Option to descramble encrypted channels for free distribution as DVB-T
- Common Interface slot for Conditional Access Module
- QPSK / 8PSK Satellite Receiver for both SD and HD transmissions
- Output options include COFDM, QAM, IPTV and ASI
- Individual power supply or 11 output power supply for 19" rack
- Cost effective
- Option to re-encrypt channels
- Easy set up through embedded web browser
- ASI input for a second transport stream
- Handles teletext and program information
- Powerful 102dBµV output level
- 19" Rack or wall mountable

a2b

ETX-200



ETX-200 combines a COFDM tuner and ASI input with a wide choice of outputs including COFDM, IP, ASI, QAM and analogue. The product has Common Interface for decryption and allows you to build your own multiplexes with the inbuilt remultiplexing function. The tuner also handles ASI input so you can combine ASI streams or AV inputs from up to 4 set top boxes / DVD players / PCs (see DCC200 pg. 120 and DCC210 pg. 122) with terrestrial TV content into a single digital multiplex.

- Option to descramble encrypted channels for free distribution as DVB-T
- 1 x ETX-200 will generate at least 6 digital channels
- Common Interface slot for Conditional Access Module
- Output options include COFDM, QAM, IPTV and ASI
- Easy set up through embedded web browser
- Individual power supply or 11 output power supply for 19" rack
- Option to re-encrypt channels
- Handles teletext and program information
- ASI input for a second transport stream
- Powerful 102dBµV output level
- 19" Rack or wall mountable
- Cost effective

MATV, SMATV & CCTV

A2B ELECTRONICS — QAM PROCESSORS





ESC-100



ESC-100 The ESC-100, from Swedish manufacturer A2B Electronics is a QPSK to QAM (DVB-S to DVB-C) transmodulator for SD signals transmitted in DVB-S. It is designed for use on both VHF and UHF so that every available channel on a Cable TV network can be used. Exceptional performance based on the latest digital platform.

ESC-200 ESC-200 is a QPSK / 8PSK to QAM (DVB-S / S2 to DVB-C) transmodulator for SD and HD signals transmitted in DVB-S and DVB-S2. It is designed for use on both VHF and UHF so that every available channel on a Cable TV network can be used. Exceptional performance based on the latest digital platform.





EMU100 Management Unit for the remote control of up to 20 E Series modules (i.e. ESC100 and ESC200) over IP. RJ45 Ethernet connection.

A2B ELECTRONICS — ACCESSORIES





EBU100 19" base unit for a 19" rack cabinet. For 1 x EPP100 Power Supply and up to 7 x ESX200 / ETX200 / ECX200.





EPP100 Power Supply. Mounts in EBU100 19" base unit. 100W output power. 11 separate 7.5v DC outputs. 2A current limit on each output. Input voltage range 100-240V.



PS9EXM



500200.01

PS9EXM Power supply plug pack. 9V DC for the ESX-200, ETX-200 and ECX-200.

500200.01 Power cable to suit EPP100.





ESXCP 35mm cover plate to cover empty bays for EBU100.

MATV, SMATV & CCTV

FRACARRO

HEADLINE

The Headline series from Fracarro is a range of high quality products designed for large SMATV and CATV networks. It incorporates Fracarro's 75 years plus experience with Philips design.

The HeadLine series delivers professional AV and digital television solutions with the very best picture quality by employing innovative electronic technologies in a proven mechanical system.

HeadLine products are designed for commercial properties such as MDUs, mining camps, broadcast environments and public arenas. The modules guarantee electrical performance and can be installed in a variety of configurations within the same headend. HeadLine allows highly selective and agile signal filtering and the distribution of codified programs.

Each HeadLine module is hot swappable and incorporates a complete mains power supply, which means headends may be updated easily with minimum downtime.

HEADLINE ASI-COFDM MODULATOR

FRACARRO

HEADLINE

SIG7121



**ASI
TO
DVB-T
TERRESTRIAL**

SIG7121 modulates an ASI input — to COFDM according to the DVB-T standard, from DCC200 AV encoder or DCC210 HDMI to ASI encoder or almost any AV signal. SIG7121 is a cost effective solution that provides outstanding picture quality.

The SIG7121 meets all relevant Australian standards. SIG7905 Controller Host and FHM software can provide remote configuration and monitoring. ASI stream can be looped to additional modulators with SIG7901 or SIG7902 base unit (See pg. 126).

- COFDM modulator with front panel ASI input
- Process the outputs into your own Digital Multiplex
- Full Band 1 to Band 5 output in COFDM
- Front panel Combiner input
- Laptop set up for easy maintenance

HEADLINE COFDM PROCESSORS

FRACARRO

HEADLINE

SIG7540



**DVB-T
TERRESTRIAL
TO
TS**

Process COFDM input to Transport Stream Output. The common interface slot enables decryption of scrambled services when used with CAM. Convert the Transport Stream Output into IP with the SIG7720 (see over). Manage remotely via SIG7905.

- Digital Terrestrial receiver with Transport Stream Output
- Common interface slot for Conditional Access Module(CAM)
- HD Compliant
- Remote configuration and monitoring via controller host SIG7905 and FHM software

HEADLINE QPSK PROCESSOR

FRACARRO

HEADLINE

SIG7100



**DVB-S/S2
SATELLITE
TO
TS**

Process QPSK input to Transport Stream Output. The common interface slot enables decryption of scrambled services when used with the appropriate CAM. Convert the Transport Stream Output into COFDM with the SIG7120 (see over). Manage remotely via SIG7905.

- Digital satellite receiver with Transport Stream Output
- Common interface slot for Conditional Access Module(CAM)
- HD Compliant
- Remote configuration and monitoring via controller host SIG7905 and FHM software

MATV, SMATV & CCTV

FRACARRO HEADLINE IP PROCESSORS

FRACARRO

HEADLINE

SIG7720



TS
TO
DVB-IP

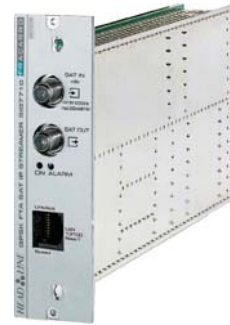
Encodes Transport Stream to IP with up to 100 Mb/s input. Multicast/Unicast encapsulation IP option. Embedded web browser for local or remote management with laptop or PC.

- Individual IP address for each channel
- Supports both UDP and RTP protocol
- Password protection for web management
- Programming possible with TPE

FRACARRO

HEADLINE

SIG7710



DVB-S/S2
SATELLITE
TO
DVB-IP

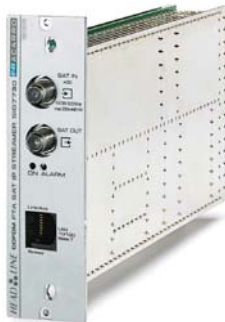
Encodes digital satellite channels into IP with up to 20 Mb/s from one satellite transponder. Multicast IP option. Embedded web browser for local or remote management with laptop or PC.

- Suitable for network distribution where high quality signals are required
- Individual IP address for each channel
- Supports both UDP and RTP protocol
- Password protection for web management
- Programming possible with TPE

FRACARRO

HEADLINE

SIG7730



DVB-T
TERRESTRIAL
TO
DVB-IP

Encodes digital terrestrial channels into IP with up to 20 Mb/s from one DTT Multiplex. Multicast IP option. Embedded web browser for local or remote management with laptop or PC.

- Suitable for network distribution where high quality signals are required
- Supports both UDP and RTP protocol
- Programming possible with TPE
- Individual IP address for each channel
- Password protection for web management

FRACARRO HEADLINE TRANSPORT STREAM PROCESSOR

FRACARRO

HEADLINE

SIG7120



TS
TO
DVB-T
TERRESTRIAL

Modulates Transport Stream input from the SIG7100 (see above) through the back frame into COFDM. The front panel includes F connectors for mix-in and RF output of modulated signal. Manage remotely via SIG7905.

- High output level 85dBμV.
- Modulator with Transport Stream input on back panel.
- F connectors for mix-in and RF output of modulated signal.
- Programmable via Controller Host SIG7905 and via software FHM.
- New Headline housing for professional installations in 19" racks.

MATV, SMATV & CCTV

HEADLINE PROFESSIONAL HEADENDS

FRACARRO

HEAD LINE

SIG7330



DVB S/S2
SATELLITE
TO
PAL
OR
TS

QPSK receivers with audio/video outputs on RCA (cinch) connectors to receive free-to-air digital satellite programs. The SIG7330 module has also a TS output on the back panel. One input and one loop-through output for the connection of several receivers on the same SAT polarity.

- LNB supply, 14/18V 0/22KHz, DiSEqC 1.0
- Software download possible at the installation site.
- Programmable via FHM software.

FRACARRO

HEAD LINE

SIG7340



DVB S/S2
SATELLITE
TO
PAL
OR
TS

QPSK receivers with Common Interface slot to receive free-to-air or encrypted digital satellite programs available on audio/video outputs with RCA (cinch) connectors. The SIG7340 module has also a TS output on the back panel. Loop-through output for the connection of several receivers on the same SAT polarity.

- CI slot available to decode the encrypted programs. Compatible with more than 150 existing CAMs.
- Module can be used as a second CAM card.
- Generate 14 or 18V, 22 KHz tone and DiSEqC 1.0, suitable to power LNB or to control multiswitch output.
- Programmable via FHM software.

FRACARRO

HEAD LINE

SIG7531



DVB T
TERRESTRIAL
TO
PAL
OR
TS

COFDM receivers to distribute free-to-air digital terrestrial programs. They can also be installed as a single unit to distribute one program through RCA outputs (for MPEG-2 compressed programs).

- Ideal solutions for regeneration of DTT signal.
- Enables the audio/video signal to be available as a TS MPEG2/MPEG4 form distributed from the back panel.
- Loop-through input for the connection of several receivers on the same SAT polarity
- Remote configuration and monitoring (via SIG7905 controller host and FHM software.
- HD compliant.

FRACARRO

HEAD LINE

VSB Modulators



AV
TO
PAL

SIG7282S

Stereo audio, fully agile Vestigial Side Band modulator. Output selectable between 47 and 862MHz. Double conversion, double SAW filters and tracking filter create very high C/N ratio in band that allows the distribution of more than 80 channels. Manage remotely via SIG7905.

SIG7282

PAL B/G mono, fully agile Vestigial Side Band modulator. Output selectable between 47 and 862MHz. Double conversion, double SAW filters and tracking filter create high C/N ratio in band that allows the distribution of more than 80 channels. Manage remotely via SIG7905.

HEADLINE TS—QAM OR ASI

FRACARRO

HEAD LINE

SIG7111



ASI
TO
DVB C
CABLE

The SIG 7111 modulates a signal received from the ASI input to DVB-C standard (using QAM modulation). It can be used to modulate different analogue signals coming from the SIG7404 encoder or to modulate Transport Stream available on the back panel from digital receivers.

- QAM Modulator with ASI input on the front panel.
- Remote configuration and monitoring.
- HD Compliant.
- MPEG4/MPEG2 Compliant.

MATV, SMATV & CCTV

FRACARRO HEADLINE ACCESSORIES

HEAD  LINE

Base Units with Control Module



FRACARRO



SIG7901

19" base unit for a 19" rack cabinet. Interconnection module SIG7900 included. For 12 Headline modules (1 x SIG7900 Interconnection module + 11 other Headline modules). SIG7901 is rack mountable, with all the accessories included in the packaging (mains cord, extracting tools, channel labels and module labels).

SIG7902

Base unit for wall mounting. Interconnection module SIG7900 included. For 7 Headline modules (1 SIG7900 Interconnection module + 6 other Headline modules). SIG7902 is wall mountable, with all the accessories included in the packaging (mains cord, extracting tools, channel labels and module labels).

HEAD  LINE

SIG7905



Controller host module for remote control of all Headline series headend modules. 1 x RS232 port, 1 x Ethernet port and 2 x USB host ports. Enables local and remote management of modules. Allows remote monitoring and alerts.

- Local direct connection, PC to Headend
- Remote connection via Ethernet (LAN)
- Remote connection via external modem (PSTN Or GSM)
- SMS / email alert system

FRACARRO

HEAD  LINE



SIG7904

Front blanking plate, 3RU high x 1 slot wide, to be used with SIG7901 and SIG7902 to cover empty bays.

PROFESSIONAL CAMS

IRDECAM



Irdeeto Professional PCMCIA Conditional Access Module. Descrambles 6 channels simultaneously. Embedded 32-bit CPU (ARM7TDMI). Supports common descrambling algorithm.

VASTCAM



VAST Professional PCMCIA Conditional Access Module. Descrambles 6 channels simultaneously. Embedded 32-bit CPU (ARM7TDMI). Supports common descrambling algorithm.

MATV, SMATV & CCTV

FRACARRO FR PRO PROGRAMMABLE HEADEND



FRPRO is a new headend that provides highly selective filtering and amplification of TV Channels. Extremely flexible, it enables UHF Channel Clusters to be selected from any of the 3 inputs thanks to an input distribution matrix. The 4 versions available cover most installation requirements. FRPRO headends are programmed by either the built in control unit or a PC with FRPRO software, available at no extra cost. A USB port enables the installer to save configurations on a USB memory stick. FRPRO headends can be installed in just a few minutes with the self alignment function, that automatically measures and adjusts the power of each channel as required.

FRACARRO

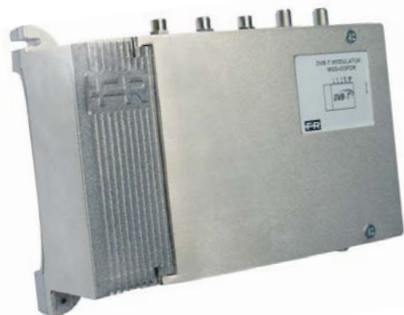
FRPRO 10

Inputs	FM	B. III+DAB	AUX	UHF1	UHF2	UHF3
Frequency	88–108MHz	174–300MHz	47–862MHz	470–862MHz	470–862MHz	470–862MHz
Selectable Cluster On Inputs	-	-	-	UHF1: 8,9,10		
	-	-	-	UHF2: 5,6,7,8,9,10		
	-	-	-	UHF3: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10		
Gain	46dB	46dB	36dB	43dB	43dB	43dB
Dynamic Adjustment (on each input)	20dB	20dB	20dB	20dB	20dB	20dB
Cluster Adjustment	-	-	-	20dB	20dB	20dB
Master Level Adjustment	20dB					
Max. Input Level	90dBµV DTT	85dBµV DTT	110dBµV DTT	90dBµV DTT	90dBµV DTT	90dBµV DTT
Max. Output Level	121dBµV DTT					
Remote Power (max. 250/100mA)	No	No	No	12/24V	12/24V	12/24V

FRACARRO DIGITAL MODULATOR

FRACARRO

MOD-COFDM



Converts composite Analogue Video and Audio from Video Cameras, Security Cameras, DVD players and set top boxes etc. (PAL, NTSC or SECAM) into digital terrestrial. Retains picture quality across large or small distribution networks.

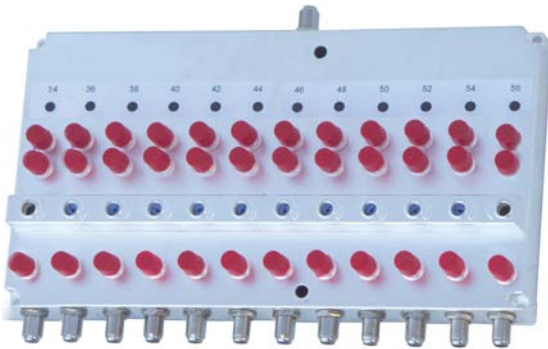
High compatibility with Australian televisions. Excellent picture quality.

Easy to maintain and simple to install

Inputs & connectors:	Video: Composite, 1 x RCA; Audio: Stereo, 2 x RCA. RJ45 for control via TPE handheld programmer and software upgrades.
RF Output & Connectors:	F female x 1, RF Mix Input F female x 1
Video Input Level:	.7 to 1.5 Volts peak to peak
Audio Input Level:	.7 to 1.4 Volts peak to peak
Audio Level Adjustment:	-6 to +34dB (in respect to 1Vp nom.) or Auto. Level Control
Channel Name:	default 'EXT SRC 1' program with TPE (14 Characters max.)
Logical Channel Numbering:	from 1 to 999 (100 default)
Video Aspect Ratio:	4:3, 16:9 or AUTO (detected from input signal)
Output channel bandwidth:	7 or 8 MHz
Numbers of Carriers:	8,000 (8K)
Modulation types:	QPSK, 16QAM or 64QAM selectable
FEC:	1/2, 2/3, 3/4, 5/6 or 7/8
Guard Interval:	1/4, 1/8, 1/16 or 1/32
Output Frequency range:	470 - 862 MHz
Output Level:	60 - 90 dBuV, adjustable in 1dB steps
Output MER:	>33dB

MATV, SMATV & CCTV

CHANNEL COMBINERS



COM6

Six input, single output channel combiner with dual cavity filters and level adjustment for each input. These properly filtered channel combiners are ideal for mixing the outputs of multiple modulators, set top boxes or any other modulated source without the noise associated with combining splitters, taps or other broadband devices. Channel inputs are user tuneable with a noise source and spectrum analyser or can be set at time of order. Insertion Loss ~4dB.

COM12

Twelve input, single output channel combiner with dual cavity filters and level adjustment for each input. These properly filtered channel combiners are ideal for mixing the outputs of multiple modulators, set top boxes or any other modulated source without the noise associated with combining with splitters, taps or other broadband devices. Channel inputs are user tuneable with a noise source and spectrum analyser or can be set at time of order. Insertion Loss ~4dB.

COMPOSITE TO ASI DIGITAL MODULATION



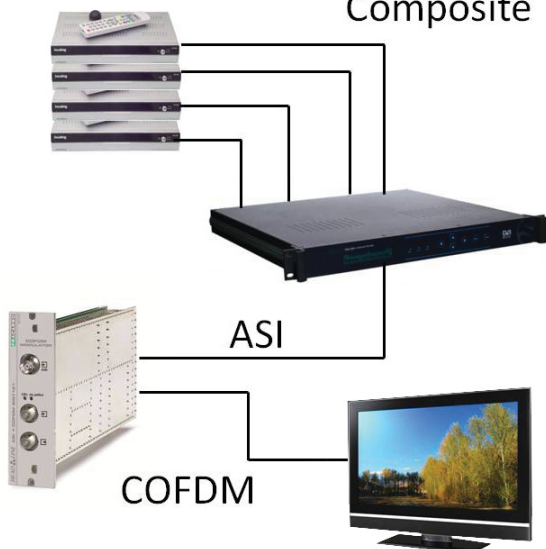
DCC200



A MPEG encoder that converts composite outputs from set top boxes, DVD players, security cameras, PCs etc. into an ASI transport stream. The ASI transport stream can then be converted into COFDM using the SIG7121, the ESX200 or the ETX200 (see pg. 117).

- Takes any 4 composite Analogue outputs from Video Cameras, DVD players and set top boxes
- Laptop / LCD interface for simple installation
- Advanced compression and multiplex technology
- Set the bit rate of each channel from 1 to 15Mb/s
- Personalise each channel name
- Proven track record of reliability and stability
- Adjustable video parameters and audio standards

Composite



Cost-effective conversion of composite outputs into Digital

- Advanced compression and multiplex technology
- Set the bit rate of each channel from 1 to 15Mb/s
- Personalise each channel name
- SIG7121 from Italian manufacturer, Fracarro
- Proven track record of reliability & stability
- Adjustable video parameters and audio standards
- 8, 12 and 16 channel kits also available
- IP output now available

MATV, SMATV & CCTV

HDMI / SDI / COMPONENT TO ASI DIGITAL MODULATION



DCC210



Convert a HDMI, HDSDI or Component output into 1 ASI HD transport stream and IPTV. The DCC-210 connects directly to the Fracarro SIG7121 so you can convert the ASI transport stream into digital terrestrial COFDM in HD. Works with set top boxes, Blu Ray players, studio cameras, computers & any product with HDMI, HDSDI or Component output.

- Separate ASI & IP outputs
- Easy set up with LCD display or through your laptop
- Create your own channel names or use defaults
- Advanced compression & multiplex technology
- Set the bit rate of the channel from 0.4–19Mbps
- Proven track record of reliability & stability
- Adjustable video parameters & audio standards

HDMI TO HD DIGITAL DTT MODULATOR



DCC301



An exciting new product that allows you to convert any HDMI source directly to digital terrestrial. It converts HDMI output from Blu-Ray players, games consoles, DVD players and set top boxes into high definition COFDM.

The full standard HDMI modulator is simple to install and easy to maintain.

- HDMI Full HD input with 1080i / 720p resolution.
- Even supports PC video playback via DVI—HDMI cable.
- Full HDCP support.
- Full Band HD terrestrial output in 1080i / 720p resolution.
- Plug and play setup or create your own channel name, Logical Channel Number and RF output channel.
- Laptop web browser interface for easy installation or use integrated keyboard display.
- Best possible MPEG4 picture quality, no compromise!
- Professional Grade MER >30dB for excellent signal quality.

4 CHANNELS HDMI TO HD DIGITAL DTT MODULATOR



DCC304



An exciting new product that allows you to convert any 4 HDMI sources directly to digital terrestrial and IPTV.

It converts HDMI outputs from Blu-Ray players, games consoles, DVD players and set top boxes into high definition COFDM and IPTV

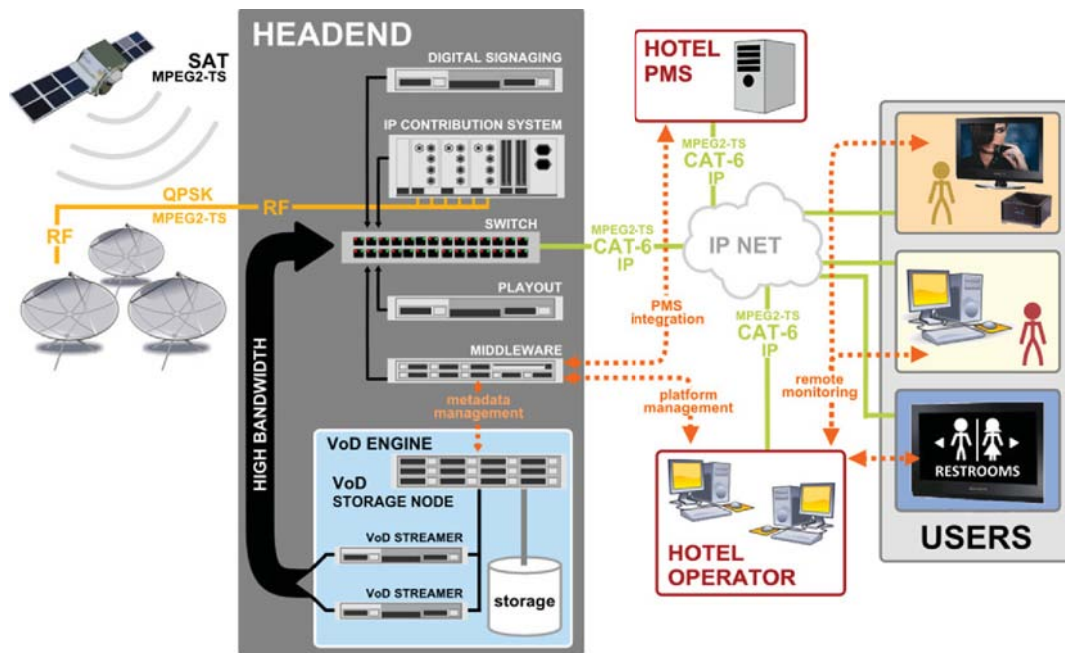
The full standard HDMI modulator is simple to install and easy to maintain.

- HDMI Full HD input with Full Band 1080i / 720p resolution HD terrestrial output.
- Full HDCP support.
- Full Band HD terrestrial output in 1080i / 720p resolution.
- IPTV output, UDP Multicast with full IGMP support.
- Plug and play setup or create your own channel name, Logical Channel Number and RF output channel.
- Best possible MPEG4 Picture Quality, no compromise!
- Professional Grade MER >30dB for excellent signal quality.
- ASI in / out to combine with other content sources.

MATV, SMATV & CCTV

THE COMPLETE FRACARRO END TO END SOLUTION FROM LACEYS.TV

All the services/hardware



Live TV



- Terrestrial and PAY TV available.
- 1 remote to control both STB & TV (16:9 and 4:3).
- EPG and Mini Guide with digital signage.
- PVR functionality with Live pause, rewind / fast forward.

Guest Services



- Information pages suitable for displaying local information about the hotel, the city and local businesses
- Hotel information fo hotel services, telephone directory, restaurants, fitness clubs etc.
- Digital Signage Controls the contents shown on public screens.
- Compounds advertising screens dynamically.
- Send announcements to screens as response of events.
- Significant opportunity for advertising income.

Video on Demand



- Box office entertainment for each guest.
- Content packages and pricing options available.
- Integrates into the existing Property Management System.
- PIN for parental control.
- PVR functionality with Live pause, rewind / fast forward.

Infotainment



- Interactive applications.
- YouTube, Facebook, Flickr, games, currency exchange app and world clock.
- Full featured web-browser with HTML5, advanced Javascript support.
- Alarm.

MATV, SMATV and CCTV

Digital Advertising



- Automatic pop ups on certain user interactions.
- Pop ups forced by the provider from the management console
- Banners on different sections and areas of the screen.
- Static and dynamic text and graphical banner options based on different banner server parameters.
- To be defined based on customer needs.

Integrated Billing Services



- Integrates into the existing PMS system.
- Enables the guest to buy both products and services.
- Allows the guest to access their billing account.
- Information management tool.

Headends

HEADLINE



- Wide range of IPTV streamers available.
- Terrestrial, Satellite, PAYTV, composite & HDMI inputs.
- UDP / RTP transmission protocol.
- Multicast steaming.

Middleware



- Menu generation.
- Content authorization.
- Billing
- Statistics collection.
- DVB-IP gateways management.

The Servers



Lacey.tv offers a range of Servers and Storage Nodes for VoD, Middleware, Digital Signage & Playout.

These units are developed with a purposeful design, energy-optimized technology, simplified systems management, and the flexibility that make to suit applications from small businesses to specialized applications for larger corporations.

Processor options and memory configurations are balanced to run typical business applications such as Microsoft® Windows® Small Business Server, Business Center Essentials, SQL Server® Workgroup/Standard, Active Directory®, and SharePoint® as well as Oracle® 11g Standard, VMware®, and file/print.

Other options include advanced management capabilities, low wattage power supply and external storage connectivity options in an ultra-compact chassis.

Set Top Boxes



- Sophisticated Multimedia Centers that manage and play content from DTT, Internet, WiFi connectivity or external audio, video or storage sources.
- Connectivity with wireless networks (802.11g) up to 54Mbps and Ethernet.
- HDMI and composite outputs.
- USB & HDMI ports

MATV, SMATV & CCTV

KINGRAY MODULATOR RACK

Kingray



**PayTV
Approved**

MD100US UHF/DSB stereo modulator. Rack mountable.

MD100VS VHF/DSB stereo modulator. Rack mountable.

KR001 The KR001 is a 19" rack or wall mount designed to rack mount and combine Kingray's new professional range of commercial products. Up to six modules can be powered and combined via the passive base. The single output provides an optional power switch for a launch amplifier if required.

KR002 Add-on Passive Combiner to suit the KR001. The KR002 is designed to fit on the back of the KR001. The kit allows the addition of an extra six inputs and one output, providing a total of 12 inputs and 2 outputs on the one 19" subrack/wall mount, if the KR002 is used in conjunction with the KR001.

GME Kingray's 'AP' range of DSB stereo modulator packages are a cost effective approach to many head end projects. This package option allows for 6 to 8 channels to be modulated and combined using MD100US &/or MD100VS modulators. This provides an ideal solution for reticulating modulated RF signals throughout any system. Sources may include PayTV or digital set top boxes, VCRs and security cameras.

	AP66	AP65	AP64	AP63	AP62	AP61	AP60	AP88SR	AP87SR	AP86SR	AP85SR	AP84SR	AP83SR	AP82SR	AP81SR	AP80SR	AP88	AP87	AP86	AP85	AP84	AP83	AP82	AP81	AP80
KR001	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
KR002	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
MD100US	0	1	2	3	4	5	6	0	1	2	3	4	5	6	7	8	0	1	2	3	4	5	6	7	8
MD100VS	6	5	4	3	2	1	0	8	7	6	5	4	3	2	1	0	8	7	6	5	4	3	2	1	0
PSK18KR	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
AP PACKAGES — 6 STEREO MODULATORS								AP PACKAGES — 8 STEREO MODULATORS																	

TRANSMISSION EQUIPMENT



LBTU5M

Frequency Range 470 to 860 MHz

Output Power (Sync Tip) 5 Watts

Power Consumption 30 Watts max

Sync Compression <3%

In-Band Intermodulation < -40dBc

Output Impedance and connector 50Ω 'N' type

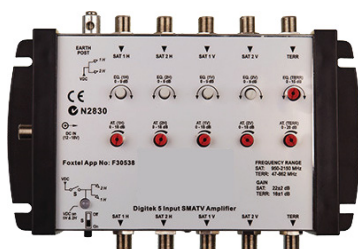
Metering Sync Tip Power Output, Input levels and Supply Voltages

Mains Supply 240V AC 50Hz ±10% IEC socket

Linear Broadcast LBT-U series of UHF television transmitters are available in: 2W, 5W, 10W and 50W power output levels. The 5 watt model is contained in a 2RU high standard rack case and includes its own internal switch mode power supply. Convection cooling is employed on all models for optimum performance in Australian conditions. A front panel LCD display indicates Output Power, Video input level, Audio input levels and supply voltages. Rack cases are finished in powdercoat for durability. They can be ordered with a DVB-T Modulator for ASI input, DVB-S2 Processor for VAST input, or AV inputs. All models carry our twelve month factory warranty on parts and labour.

MATV, SMATV and CCTV

MULTISWITCHES, TAPS, SPLITTERS & AMPLIFIERS



PayTV
Approved

DAAMP5

5 input SMATV amplifier. 4 x satellite inputs and 1 x terrestrial input. 18V for LNB powering on SAT1 and SAT2 horizontal. Gain and slope control. Gain 22 +/-2 dB SAT, 22 +/-2 dB FTA. Foxtel approval F30538



PayTV
Approved

MS58SM

Multiswitch 5x in 8x out. Foxtel approval F30499

MS516SM

Multiswitch 5x in 16x out. Foxtel approval F30500



PayTV
Approved

MT510

Cascadable multitap, 4x Sat 1x Ter. Insertion loss -10dB 1 way multitap. 4 Satellite inputs and 1 terrestrial input. Foxtel approval F30424

MT515

Cascadable multitap, 4x Sat 1x Ter. Insertion loss -15dB 1 way multitap. 4 Satellite inputs and 1 terrestrial input. Foxtel approval F30425

MT520

Cascadable multitap, 4x SAT 1x Ter. Insertion loss -20dB 1 way multitap. 4 Satellite inputs and 1 terrestrial input. Foxtel approval F30541



PayTV
Approved

SP52FA

Splitter 5 input 2 way multisplitter. 4 Satellite inputs and 1 terrestrial input. Foxtel approval F30426

SP54FA

Splitter 5 input 4 way multisplitter. 4 Satellite inputs and 1 terrestrial input. Foxtel approval F30427



PayTV
Approved

MM-DV25

Terminator, 75Ω, F Connector DC block.

MM-MSR512

Multiswitch main powered, 5 in x 12 out.

MM-MSR516

Multiswitch main powered, 5 in x 16 out.

MM-MSV508

Multiswitch remote powered, 5 in x 8 out.

MM-MSV512

Multiswitch remote powered, 5 in x 12 out.

MM-MSV516

Multiswitch remote powered, 5 in x 16 out.

MM-MSV524

Multiswitch remote powered, 5 in x 24 out.

MM-MSV532

Multiswitch remote powered, 5 in x 32 out.

MM-SS504

Splitter, 2 way.

MM-SS510

Cascadable tap/splitter. 4x Sat 1x Ter. Insertion loss -10dB.

MM-SS515

Cascadable tap/splitter. 4x Sat 1x Ter. Insertion loss -15dB.

MM-SS520

Cascadable tap/splitter. 4x Sat 1x Ter. Insertion loss -20dB.



MS38SM

PayTV
Approved

MS24SM

Multiswitch 2x in 4x out.

MS28SM

Multiswitch 2x in 8x out.

MS34SM

Multiswitch 3x in 4x out.

MS38SM

Multiswitch 3x in 8x out.



AIMS3W4



	AIMS3W4	AIMS3W8
Sat. inputs:	2	2
Ter. inputs:	1	1
Outputs:	4	8
Sat. gain:	0-6dB	3dB
Ter. gain:	-10dB	-16dB
Input/Output return loss:	≥10dB	≥10dB

Transparent LNBF power, external power supply not required. Wall mountable with ground terminal.

MATV, SMATV & CCTV

FIBRE OPTIC SOLUTIONS

FRACARRO FIBRE OPTIC

The OPT-TX51 and OPT-RX51 are part of a new range of optical transmitters and receivers. Unlike standard optical equipment, the OPT-TX51 converts and distributes terrestrial and 4 satellite polarities through one Single Mode fibre, saving time and money in installation. The OPT-RX51 converts the terrestrial and satellite signals back to RF for further distribution. Ideal for long distance signal distribution. Only one fibre optic cable required for all signals (SAT, DTT, analogue, CCTV, Ethernet etc.)

- Ideal for long distance distribution
- Electrical isolation between equipment
- Resistant to water and humidity
- Immune to electromagnetic interference
- Low power consumption, low impact on the environment



10dBm

5 Polarities, only 1 Fibre!

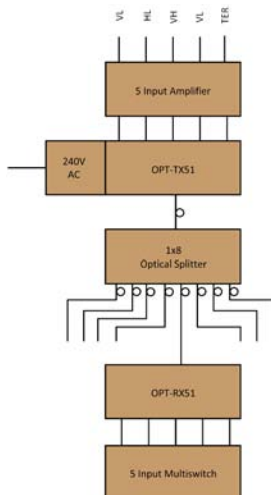
FRACARRO

OPT-TX51 Transmitter

Fibre ports	1 out + 1 out aux
Wave length	1260-1600nm
Output power	10dBm
Bandwidth	47-2200MHz
Gain	4dB
Max input level	117dBμV
Power Supply Vac, Hz	220-240, 50-60

FRACARRO

OPT-RX51 Receiver



Fibre ports	1 input + 1 in aux
Wave length	1260-1600nm
Input power	-12 to +5dBm
Bandwidth	47-2200MHz
Gain	4dB
Max output level	110dBμV
Power Consumption mA@14V	260
Power Supply Vac, Hz	14-18V from multiswitch

Tech Tip:

To achieve the long distances possible with FO, we recommend Single Mode fibre be installed.

Features:

- 4 satellite polarities (950-2200MHz) and terrestrial bandwidth (47-862MHz) transmitted using just 1 fibre optic cable
- HD compliant
- DVB-S, DVB-S2, DVB-T and DVB-T2 compliant
- Auxiliary input/output for additional services/devices (Ethernet/TVCC/....)
- Can supply up to 300mA on SAT inputs
- High RF input level
- Remotely powered from a multiswitch

MATV, SMATV & CCTV

FRACARRO

OPT-TX54 & OPT-RX54



	OPT-TX54	OPT-RX54
Fibre ports	4 out	4 in
Wave length	1260–1600nm	1260–1600nm
Input power	-	-12 to +5dBm
Output power	4dBm	-
Bandwidth	47–2200MHz	47–2200MHz
Gain	9dB	4dB
Max input level	120dBμV	-
Max output level	-	115dBμV
Power Consumption mA@14V	-	260
Power Supply Vac, Hz	220–240, 50–60	14–18V from multiswitch

Features:

- HD compliant
- DVB-S, DVB-S2, DVB-T and DVB-T2 compliant
- Can supply up to 300mA on SAT inputs
- High optical budget
- High RF input level
- Remotely powered from a STB/MSW

FRACARRO

KTX & KRX



KTX optical transmitter converts RF TV and SAT signal to an optical signal. KRX optical receiver converts the optical signal into RF signal for further local distribution. SC/ACP connectors on the optical input. K-Series profile, mounts on KD100 din rail.

	KTX	KRX
Wave Length	1310±20nm	1100±1600nm
Input power	-	-10 to +6dBm
Output power	6dBm	-
Bandwidth	47–2150MHz	47–2150MHz
Return Loss	>12dB	>12dB
Max input level	89dBμV (88–860MHz) 79dBμV (950–2150MHz)	-
Max output level	-	94dBμV (88–860MHz) 84dBμV (950–2150MHz)
Power Consumption	80mA	150mA
Power Supply	12V	12V

FRACARRO

KSP1_2 & KSP1_4



KSP1_2 splits the optical signal into two outputs, KSP1_4 into four outputs. These items can be installed anywhere in the distribution network without using a power supply. K-Series profile, should be mounted on KD100 din rail.

	KSP1_2	KSP1_4
Fibre ports	2 out	4 out
Wave length	1310nm, 1550nm	1310nm, 1550nm
Insertion Loss	3.2dB	6.4dB
Return Loss	>45dB	>45dB
Isolation	>45dB	>45dB
Connector Type	SC/APC	SC/APC

MATV, SMATV & CCTV

MOSSMAN FIBRE OPTIC



MOS100PTX Optical Transmitter, 10dBm Output.



MOS800PPRT Optical node, Optical In/Out.



OMCRACK Optical to Ethernet Media Card Rack.



OMCCARD Optical to Ethernet Card, 1Gb/s capable.

Optical Splitters



OPSP1X8

OPSP1X2	Optical Splitter, 1 x 2.
OPSP1X4	Optical Splitter, 1 x 4.
OPSP1X5	Optical Splitter, 1 x 5.
OPSP1X6	Optical Splitter, 1 x 6.
OPSP1X8	Optical Splitter, 1 x 8.
OPSP1X9	Optical Splitter, 1 x 9.
OPSP1X10	Optical Splitter, 1 x 10.
OPSP1X12	Optical Splitter, 1 x 12.

Optical Taps and Splitters can be configured to your order!

Optical Accessories



40SC/APC



SC/APC

40-SC/APC	Fibre Optic Double End Female to Female connector.
BR2-AA	Single mode patch cables / 2m with connectors. SC/APC-SC/APC.
BR4-AA	Single mode patch cables / 4m with connectors. SC/APC-SC/APC.
PIGTALE	1m pigtail. SC/APC
SC/APC	SC/APC to SC/APC 1.5 Metre Lead.

MATV, SMATV & CCTV

CATV

FRACARRO CATV AMPLIFIERS

- High output level and low power consumption using GaAs FET hybrid technology.
- Gain and tilt adjustable with attenuators (AMP522AL–AMP522AM) or using PAD (AMP522PL–AMP522PM).
- Mains or Line Powered with internal switch mode power supply.
- Integrated active or passive return path, switchable.
- Die-cast aluminium housing provides IP65 protection.
- 5A AC feed through to any port and 10A external AC input terminal.
- Excellent surge and transient protection.

Order relevant accessories to meet your requirements:

- 2 x diplexer filter modules MDA (see below), or if return path is not required replace with two ML02 link modules.
- Amplifiers supplied with PG11 threads, for adaptors see p. 137.
- AMP522Ax: 1 x interstage module MEX, if filtering is not required replace it with one ML01 module.



FRACARRO

AMP522AL

Line powered CATV amplifier. Bandwidth 47–862MHz, Gain 30dB VHF, 38dB UHF. Gain adjustment 0–18dB via attenuators. Linearity ± 1 dB, Voltage 24–65Vac, line power current 540–250mA.

PS6A-60

Power supply for AMP522AL 6AMP.



FRACARRO

AMP522AM

Mains powered CATV amplifier. Bandwidth 47–862MHz, Gain 30dB VHF, 38dB UHF. Gain adjustment 0–18dB via attenuators. Linearity ± 1 dB, mains power voltage 175–260Vac.

AMP522.. Diplexer Modules



MDA3047

FRACARRO

MDA3047

CATV AMP5222 Diplexer 47–862MHz.

MDA6587

Forward and return path diplexer 65–862MHz.

Diplexer filter modules for use with the AMP522 amplifier range to mix/demix the return path and forward path.

AMP522.. Splitter Modules



MS100

FRACARRO

MS100

Output splitter for AMP522 series amplifiers.

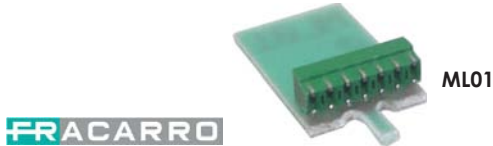
MS206

Output tap 3.5dB–3.3dB for AMP522 series amplifiers.

Splitter modules for use with the AMP522 amplifier range to fine tune output values.

MATV, SMATV & CCTV

AMP522.. Link Modules



- ML01** Link module ML01 is used as a bridge socket for the interstage and/or return path modules (2 pieces included in each amp.).
- ML02** Link module is used as a bridge in the splitter and duplex filter sockets.

AMP522.. Interstage Modules



	Frequency MHz	Insertion loss pos. A 47/862MHz dB	Insertion loss pos. B 47/862MHz dB
MEX800/08	47-862	0/0	8/0.3
MEX800/06	47-862	0/0	6/0.3

Interstage modules designed to provide attenuation and slope between the two different forward amplifier stages in AMP522.. amplifiers.

SCIENTIFIC ATLANTA PASSIVES

FEATURES:

- Industry-leading insertion loss specifications reduce amplifier requirements.
- Unique, patented AC bypass coil provides superior hum modulation performance, which is important in advanced, high current networks.
- Superior return loss specifications enable more reliable transmission of digital signals.
- Modular design allows board and cover to be changed without costly, reliability-impacting resplicing.
- Versatile housing design permits aerial or pedestal mounting.
- Power passing/blocking jumpers for increased maintenance flexibility without service interruptions.
- Interchangeability of faceplates for all DCs and splitters for simpler less expensive architectural changes.
- Durable powder coat finish for superior environmental protection.

Directional Couplers



- SADC12HC-G** CATV -12dB directional coupler.
- SADC8HC-G** CATV -8.5dB directional coupler.

Splitters



- SAS2HC-G2** CATV 2 way splitter.
- SAS3HC-G3** CATV 3 way splitter balanced.
- SAS3U-G** Multimedia splitter 1GHz 3 way unbalanced.

CATV Drop Taps



- SATMM2-4** CATV Multimedia tap 1GHz, 2 way, -4dB tap.
- SATMM2-8** CATV Multimedia tap 1GHz, 2 way, -8dB tap.
- SATMM2-11** CATV Multimedia tap 1GHz, 2 way, -11dB tap.
- SATMM2-14** CATV Multimedia tap 1GHz, 2 way, -14dB tap.
- SATMM2-17** CATV Multimedia tap 1GHz, 2 way, -17dB tap.
- SATMM2-20** CATV Multimedia tap 1GHz, 2 way, -20dB tap.
- SATMM2-23** CATV Multimedia tap 1GHz, 2 way, -23dB tap.
- SATMM2-26** CATV Multimedia tap 1GHz, 2 way, -26dB tap.
- SATMM2-29** CATV Multimedia tap 1GHz, 2 way, -29dB tap.
- SATMM4-8** CATV Multimedia tap 1GHz, 4 way, -8dB tap.

- SATMM4-11** CATV Multimedia tap 1GHz, 4 way, -11dB tap.
- SATMM4-14** CATV Multimedia tap 1GHz, 4 way, -14dB tap.
- SATMM4-17** CATV Multimedia tap 1GHz, 4 way, -17dB tap.
- SATMM4-20** CATV Multimedia tap 1GHz, 4 way, -20dB tap.
- SATMM4-23** CATV Multimedia tap 1GHz, 4 way, -23dB tap.
- SATMM4-26** CATV Multimedia tap 1GHz, 4 way, -26dB tap.
- SATMM4-29** CATV Multimedia tap 1GHz, 4 way, -29dB tap.
- SATMM4-32** CATV Multimedia tap 1GHz, 4 way, -32dB tap.
- SATMM8-11** CATV Multimedia tap 1GHz, 8 way, -11dB tap.
- SATMM8-14** CATV Multimedia tap 1GHz, 8 way, -14dB tap.
- SATMM8-17** CATV Multimedia tap 1GHz, 8 way, -17dB tap.
- SATMM8-20** CATV Multimedia tap 1GHz, 8 way, -20dB tap.
- SATMM8-23** CATV Multimedia tap 1GHz, 8 way, -23dB tap.
- SATMM8-26** CATV Multimedia tap 1GHz, 8 way, -26dB tap.
- SATMM8-29** CATV Multimedia tap 1GHz, 8 way, -29dB tap.

MATV, SMATV & CCTV

HARDLINE CABLE ACCESSORIES

Hardline Connectors



HL500ST



HL750SL



HL500FM



HL7001



HL90



HLP3/500-F



HL111



HL500SPICE



HLFC6



HLPG11-RG11



HLPG11-F



HL500RAFM

HL90	Hardline .500 right angle stinger.
HL103	Hardline stinger .500 to F Male.
HL107	Hardline stinger .500 Female to Female.
HL108	Hardline right angle Female KS to Female KS port .
HL111	Hardline right angle .500 stinger to right angle stinger.
HL500FM	Hardline .500 connector to F Male.
HL500RAFM	Hardline .500 right angle to F Male.
HL500SPICE	Hardline .500 splice Female to Female.
HL500ST	Hardline connector .500 stinger.
HL7001	Hardline .500 Joiner, stinger Female to stinger Female.
HL750SL	Hardline connector .750 stinger.
HLFC6	Hardline .500 Adapter, stinger Male to F Female.
HLP3/500-F	Adaptor, P3-500(KS) to F Female.
HLPG111-5/8	Adapter, PG11-5/8.
HLPG11-F	Adapter, PG11-F.
HLPG11-PG11	Stinger adapter, Male to Male.
HLPG11-RG11	Hardline PG11-RG11
HLHT106	Hardline .500 coring and stripping tool.

Pillars



URDV1

Outdoor equipment pillar, base and bolts. Green colour. Protects outdoor plant from the elements. 1x equipment panel included with each unit. Ventilation holes included. Lock system available.

URDV1	263x203mm equipment mounting panel.
URDV2	470x205mm equipment mounting panel.

MATV, SMATV & CCTV

CCTV SOLUTIONS



FRACARRO

DVR VENEZIA 4

4 Channel DVR, H.264 compression. VGA output. Adjustable resolution (max 720x570).

Recording, live, playback, control, back up and remote connection. Alarm event(s) can be viewed by mobile phone, PDA or smartphone. Central monitoring system (CMS) with graphic interactive maps. Optional control keyboard.



CIR700-650WDR

FRACARRO

CIR700-650WDR

Professional camera with 42 LEDs IR illuminator. 6–50mm varifocal lens. 12V DC–24V AC.

CIR700-POLE

Pole adapter for CIR700-650WDR.

High Definition Resolution 720 TVL. Day and Night vision with mechanical IR filter, OSD menu with joystick.



CIR540-49

FRACARRO

CIR540-3.6

Compact camera with 24 LEDs IR illuminator. 3.6mm focal length. 12V DC.

CIR540-49

Compact camera with 36 LEDs IR illuminator. 4–9mm varifocal lens. 12V DC.

CIR540-922

Compact camera with 36 LEDs IR illuminator. 9–22mm varifocal lens. 12V DC.

High Resolution 540 TVL and equipped with a 1/3" Sony Super HAD CCD high sensitivity sensor. Infrared LED for night vision.



CDIR540-3.6

FRACARRO

CDIR540-3.6

Dome camera with 24 LEDs IR illuminator. 3.6mm focal length.

CDIR540-312

Dome camera with 36 LEDs IR illuminator. 2.8–12mm varifocal lens.

High Resolution 540 TVL and equipped with a 1/3" Sony Super HAD CCD high sensitivity sensor. Infrared LED for night vision.



FRACARRO

DVR MILANO 16

16 Channel DVR, H.264 compression. VGA and S-Video outputs. Adjustable resolution (max 720x570)

Recording, live, playback, control, back up and remote connection). Alarm event(s) can be viewed by mobile phone, PDA or smartphone. Central monitoring system (CMS) with graphic interactive maps. Optional DVD burner and control keyboard.



DVR VISTA 4

4 Video and 4 Audio inputs Security recorder. Multi screen real time browsing with remote and mobile phone monitoring.

H.264 compression, 16 bit colour, USB-2 back-up, supports 1 x SATA 3.5" HDD for up to 2TB of storage (excluded). Easy to use menu interface.



CIR420-3.6

Compact camera with 24 LED IR illuminator. 3.6mm focal length lens.

CCD 420 resolution TVL colour camera, 1/3" SONY CCD technology, 12 Volts DC. Split glass minimizes illuminator haze.



CDIR420-49

Weatherproof dome camera with integrated 36 LED IR illuminator. 4–9mm varifocal lens.

CCD 420 TVL colour camera, 1/3" SONY CCD technology, 12 Volts DC. Split glass minimizes illuminator haze.

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Satellite Equipment

SATELLITE TV DISHES

C BAND SATELLITE DISH



AI2.3

C-Band Prime Focus Polar Mount

Diameter:	2.27m
Focal Length:	92.5cm
Depth:	34.8cm
F/D Ratio:	0.40
Gain C-Band:	39.0dBi
Gain Ku-Band:	47.0dBi
Net Weight:	9Kg
Net Volume:	0.1860 CBM

KU BAND SATELLITE DISHES



Penta85 mount

FRACARRO

DIGIT65

A smaller Penta 85, Digit 65 out performs most 65cm dishes whilst looking different. Powder coated steel construction supported on an easy to use steel mount, quality from top to toe. Cartons of 10 pieces minimise shipping costs.

PENTA 85

Precision design equal in gain to premium quality 85cm and common 90cm offset dishes, Ku band Penta's unique five sided shape dramatically reduces side lobes common in small dishes. Made from powder coated steel (aluminium by special order) and supported on a strong steel mount. Cartons of 10 pieces minimise shipping costs.



AID85 mount

Now available with quick release detachable LNB arm for portable use.



	AID65	AID85
Aperture Efficiency:	>80%	>80%
Horizontal Axis:	65cm	81.2cm
Vertical Axis:	74cm	92cm
Gain @ 12.5GHz:	37.6db	39.8db
Focal Length:	32.5cm	40.6cm
F/D Ratio:	0.5	0.7
Elevation Alignment:	10° – 83°	10° – 83°
Pole Diameter:	30 – 48mm	30 – 48mm
Operation Wind:	90Km/h	90Km/h
Survival Wind:	180Km/h	180Km/h

Patented double rolled edge. Galvanised steel reflector. Charcoal colour, powder coat finish. Stainless steel hardware. 40mm LNB clamp included.

MULTIFEED LNB HOLDER



HMBF001

Fit multiple LNBs to one dish. Designed for HSD Series suits most dishes. Allows 2 LNBs to see 2 satellites with only one dish.

HSD Series



HSD83 mount

FROM \$15!
European Quality
& Performance!

KU Band Offset

HSD73	Satellite Dish 73cm.
HSD85	Satellite Dish 85cm.
HSD102	Satellite Dish 102cm.

SATELLITE TV LNBFS



KFM21,
KFH21

*Recommended
for VAST*

KFM21

Optus frequency range.	
Local Osc. Frequency:	10.7GHz
Input Frequency Range:	11.7–12.75GHz
Output Frequency Range:	1,000–2,050MHz
Noise Figure:	0.7dB typical

Dual polarity single output LNB for VAST, Aurora and general usage. 10.7GHz L.O. fully employs high end of I.F. for better bandwidth.

KFH21

Optus frequency range.	
Local Osc. Frequency:	11.3GHz
Input Frequency Range:	12.25–12.75GHz
Output Frequency Range:	960–1,450MHz
Noise Figure:	0.7dB typical

Dual polarity single output LNB for VAST, Aurora and general usage. 11.3GHz traditional Optus L.O.



KFCJ21

Universal single output LNB.	
Local Osc. Frequency:	9.75/10.60GHz
Frequency:	10.70–12.75GHz
Noise Frequency:	0.3dB

Dual polarity single output, universal.



AIL107T

Optus frequency range.	
Local Osc. Frequency:	10.7 GHz
Input Frequency Range:	11.7–12.75GHz
Output Frequency Range:	1,000–2,050MHz

Ultra compact design dual polarity dual output and retractable sleeve ensures a waterproof installation. Meets VAST specification.



LNBQUAD

*PayTV
Approved*

Optus frequency range.	
Local Osc. Frequency:	10.7GHz
Input Frequency Range:	11.7–12.75GHz
Output Frequency Range:	1,000–2,050MHz

Dual polarity Quad switch output, PayTV approved.



LNB DUAL

*PayTV
Approved*

Optus frequency range.	
Local Osc. Frequency:	10.7GHz
Input Frequency Range:	11.7–12.75GHz
Output Frequency Range:	1,000–2,050MHz

Ku band dual polarity dual output LNB's delivers both horizontal and vertical polarities simultaneously. High isolation between polarities, low noise, excellent local oscillator stability, weatherproof o-ring and gasket seal inside outer housing. PayTV approved.



EHC1600

LNB, C band, Digital Ready. Surge Protected.

R.F. Input:	3.7–4.2GHz
I.F. Out:	950–1,450MHz
L.O.Freq:	5,150MHz
Noise:	20°K–25°K
Gain:	65dB typical
Flatness:	±3dB
Power:	12–20V DC
Current:	150mA

Satellite Equipment

KFDJ22



Twin Universal

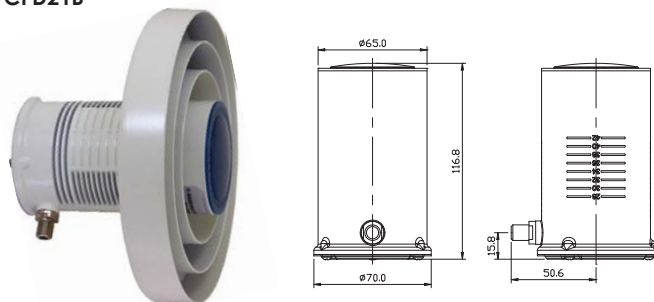
Unique double feedhorn provides simultaneous access to 2 satellites 6 degrees apart thanks to an integrated 2 output DiSEqC 2.0 switch. Dual polarity single output x2, universal.

International frequency range	Low Band	Hi Band
Local Osc. Frequency:	9.75GHz	10.6GHz
Input Frequency Range:	10.7–11.7	11.7–12.75GHz
Output Frequency Range:	950–1,950	1,100–2,150MHz
Noise Figure:	.7dB typical	

Input Connectors:	F/D Ratio 0.6
Input Reflector Type:	Offset
Cross Polarity Isolation:	20dB(Min.) 28dB(Type.)
Conversion Gain:	50dB(Min.) 62dB(Max.)
Gain Flatness:	±0.5dB per 27MHz
Local Osc. Freq. Stability:	@25°C: ±1MHz over -30°C to +60°C ±3MHz
Local Osc. Phase Noise:	@1 KHz Offset -60dBc/Hz @10 KHz Offset -80dBc/Hz @100 KHz Offset -100dBc/Hz
Output Power:	1dB Gain Compression Point 0dBm(Min.)
In Band Harmonic Distortion:	58dB(Max.)
Output Power @ 1dB Compression Point:	0dBm(Min.)
Output Return Loss:	>7.5dB

C BAND LNB

CFD21B



Input frequency range:	3.4–4.2GHz
Output frequency range:	950–1,750 MHz
Local Oscillator freq:	5,150 MHz
Noise Temperature:	15°K
F/D Ratio:	0.28–0.42 adjustable
Cross Pol. Isolation:	20dB typical
Conversion Gain:	65dB
Gain Flatness:	±1dB over 36MHz
L.O. Frequency Stability:	@25°C ±1MHz -40° to +60°C ±2.5MHz
Local Oscillator Phase Noise:	@1KHz Offset -70dBc/Hz @10KHz Offset -90dBc/Hz @100KHz Offset -105dBc/Hz
Image Rejection:	40dB minimum
Output Power @1dB Compression Point:	0dBm (min.)
Output Return Loss:	7.5dB
Output Connector:	F type Female 75Ω
Current Consumption:	80mA max.
Polarity Switch:	Vertical 11.5–14.2V DC Horizontal 15.8–19V DC
Operating Temperature:	-30°C to +60°C

Dual polarity single output C band extended.

C BAND SCALAR FEED HORNS

CFH-01



F/D range:	.33–.45
Return Loss:	18dB typical

C band scalar Feed Horn.

CFH-04



F/D range:	.33–.45
Return Loss:	18dB typical

C band scalar Feed Horn. Motorised polariser (H V and skew) and Dielectric Insert (circular polarities) included.

Satellite Equipment

SATELLITE HARDWARE



SATFM

Flexi Mount. Roof mount with stay bars that adjust in length between .8 and 1.4 metres, to suit your job. Fixing kit includes self tapping screws to lock stay bars, metal roof screws and weather proofing washers. Stay bars shown at minimum length and without locking screws.



SATWM

Wall Mount. Mounts on timber, brick, concrete or almost any vertical wall surface with sleeve anchors or coach screws etc. (not included). Simple yet extremely functional for dishes up to 90cm.



EZYGMOUNT

45mmØ rigid dish mount. Stands 600mm from gutter, rafter fixing. Ships with screw kit and instructions. 900mm EZY-G/MOUNT-L available to order.



SATGM

Single leg Satellite Gutter Mount.



HDT1500

Universal Satellite Mount for wall and roof.



SJA

24 inch (61cm) stroke length Linear Actuator with Reed Sensor. Works with SJVB or analogue positioner interfaces to reliably move a bigger dish across your sky.



SJMM

Improved complete DiSEqC positioner. Interprets DiSEqC 1.2 instructions to position any dish up to 1.2m in diameter. H to H mount with high resolution hall effect sensor. Manual East West buttons simplify set up. Connects directly between DiSEqC 1.2 receiver (or optional interface Vbox) and LNB. Up to 75mmØ mount, 55mmØ dish mount.



SJVB

DiSEqC positioner interface box. Enables any DiSEqC 1.2 equipped receiver to control a bigger dish using a Linear Actuator. Stores up to 48 positions. Dishes easily fine tuned. Software and hardware dish travel limits. Mains powered, 36V DC @ 90W max. output, overload protected.

Satellite Equipment

SATELLITE ACCESSORIES

Satellite Finder



Perfect for the Caravaner!

- Attached compass to accurately pinpoint direction
- Electronic Buzzer for audible tone
- Backlight enables use in low light
- Gain adjustable for accurate readings
- Horizontal / Vertical and 22KHz LED indicators
- Measures 950–2250MHz
- Line Powered, so no batteries to replace



AIP12W

Power inserter for twin LNBS. Two inputs 1x Vertical, 1x Horizontal. Internal regulators for 13/18 volts. 24VDC switchmode power supply included.

Caravan Satellite TV Kit



KITVASTCARAVAN

Receive clear pictures anywhere in Australia. Heavy duty dish, LNB, folding tripod mount and cabling — with SQ701 signal quality meter, for fast satellite alignment. Suitable for VAST, Aurora, or FTA. Receiver supplied separately.

See Section 9 for satellite receivers.

Angle Finder



INC01

Locate your satellite by inclination angle. Each satellite slot has a different elevation. Once known you can't miss! Magnetic base helps Angle Finder stay on your feed arm.

Use in conjunction with SF96C.



DSQ4B

Indoor 4 way DiSEqC switch.

DSQ4W

Outdoor 4 way DiSEqC switch.



PI2G

Inserts (or removes) power from coax feed line. 5-2,400MHz, low loss, F type Female connectors for both RF and low voltage connections.

Optus Aurora Card



This card is used with an Irdeto embedded receiver to receive Australian programs in black spot areas on the Optus Aurora platform.

Prior to switch-over, access to Aurora is requirement to qualify for VAST.

Contents

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Receivers

TERRESTRIAL TELEVISION RECEIVERS



HHT640



A 'micro' HD digital television tuner module with integrated HDMI connector and a USB2.0 port for recording, time shift and media file playback.

The healing HHT640 is hidden and plugs directly into a TV HDMI input (AV output also included); or directly to HDMI input of a amplifier/receiver—even a projector. Includes a remote control unit and extender. Improved file compatibility, transparent to NTFS or FAT32 HDD format.

- HDMI output plug for direct screen connection
- Rotating HDMI plug assists total receiver concealment
- 'Micro' Case Design: only 145mm x 65mm x 23mm
- IR Receiver extension (included) makes the receiver even easier to conceal
- HDMI, Composite (CVBS) Video and Audio outputs included
- Record and TimeShift live TV on your USB storage device
- Flexible Media Player, plays: .dat, .mpg, .mpeg, .ts, .mp4, .divx, .avi, .mjpg, .mp3, .aac, .wma, .ac3 files and more
- Excellent High Definition & Standard Definition 'Wide Horizon' picture quality
- Resolutions 1920x1080i, 1280x720p, 720x576i, and 720x576p

- Games, Calendar, Calculator functions
- Receives all 'freeview' Channels
- Centre Cut option: displays 16:9 on 4:3 screens
- Manual and Auto Scan Modes, supports Logical Channel Numbering
- Parental Control can supervise program availability by broadcasters program ratings
- Signal Strength and Quality bars colour coded
- 7 Day Electronic Program Guide (EPG) with 8th day cross over
- Closed Caption (CC) Subtitle function embedded
- Low Energy Consumption — MEPS compliant uses less than 1W on Standby



HHT650

Low Cost!



High Definition Digital TV receiver with a USB2.0 port for recording, time shift and media file playback of movie, photo and music files. Improved file compatibility, transparent to NTFS or FAT32 HDD format.

- HDMI, Component (Y Pb Pr) and Composite (CVBS) outputs included
- Left, Right and Coaxial Audio outputs
- Record and TimeShift live TV on your USB storage device
- Flexible Media Player, plays: .dat, .mpg, .mpeg, .ts, .mp4, .divx, .avi, .mjpg, .mp3, .aac, .wma, .ac3 files and more
- Stores up to 400 favourite TV and Radio channels
- Excellent High Definition & Standard Definition 'Wide Horizon' picture quality
- Resolutions 1920x1080i, 1280x720p, 720x576i and 720x576p
- Games, Calendar and Calculator functions
- Receives all 'freeview' Channels

- Centre Cut option: displays 16:9 on 4:3 screens
- Manual and Auto Scan Modes, supports Logical Channel Numbering
- Parental Control can supervise program availability by broadcasters program ratings
- Signal Strength and Quality bars colour coded
- 7 Day Electronic Program Guide (EPG) with 8th day cross over
- Closed Caption (CC) Subtitle function embedded
- Low Energy Consumption — MEPS compliant uses less than 1W on Standby
- Compact Case Design: W 220mm x D 155mm x H 42mm

Receivers



HHT896

Recorder Ready



USB2
RECORDER



receives all
freeview
channels

DVB-T
TERRESTRIAL
HD

High Definition Digital TV receiver with all AV outputs active simultaneously. Full USB Recorder with TimeShift and powerful Media Player.

- Full USB Recorder function with time shift
- Resolutions: 1920 x 1080i, 1280 x 720p, 720 x 576p and 720 x 576i
- HDMI, Component Y/Pb/Pr and Composite CVBS Video outputs
- 7 day Electronic Program Guide (EPG) with 8th day cross over
- Full Closed Caption and Teletext functions embedded
- Automatically updates broadcaster program changes
- Centre Cut option displays 16/9 on 4/3 screens
- Signal Strength and Quality bars colour coded
- Stores up to 1000 TV and Radio channels
- Saves program parameters at Power Fail
- All Video outputs active simultaneously
- Compact case less than 220mm wide
- Outstanding HD picture quality
- Optical Digital Audio SP/DIF output
- Receives all freeview channels.



HHT895

Built-In Modulator for Older TVs



USB2
RECORDER



receives all
freeview
channels

DVB-T
TERRESTRIAL
HD

High Definition Digital TV receiver with all AV outputs active simultaneously. Includes a UHF RF Modulator for easy connection to older televisions.

- UHF RF Modulator - our first HD receiver to feature this
- Full USB Recorder function with time shift
- Resolutions: 1920 x 1080i, 1280 x 720p, 720 x 576p and 720 x 576i
- HDMI, Component Y/Pb/Pr and Composite CVBS Video outputs
- 7 day Electronic Program Guide (EPG) with 8th day cross over
- Full Closed Caption and Teletext functions embedded
- Automatically updates broadcaster program changes
- Centre Cut option displays 16/9 on 4/3 screens
- Signal Strength and Quality bars colour coded
- Stores up to 1000 TV and Radio channels
- Saves program parameters at Power Fail
- All Video outputs active simultaneously
- Compact case less than 220mm wide
- Outstanding HD picture quality
- Coaxial Digital Audio SP/DIF output
- Receives all freeview channels.

Receivers



HHM897

Built-In Modulator for Older TVs



- Excellent High Definition & Standard Definition 'Wide Horizon' picture quality
- High Sensitivity Tuner
- Receives all 'freeview' Channels
- Resolutions 1080i, 720p, 576i and 576p
- HDMI, YPbPr Component, S-Video Mini Din, and CVBS Composite outputs active simultaneously
- Inbuilt RF Modulator (UHF 21-69) for connection to old televisions that do not have video inputs
- Coaxial Digital Audio output
- Optical SPDIF Digital Audio output
- RCA Audio output

High Definition Digital TV receiver with an inbuilt RF Modulator for connection to old televisions or use in MATV networks. High Sensitivity Tuner with all AV outputs active simultaneously.

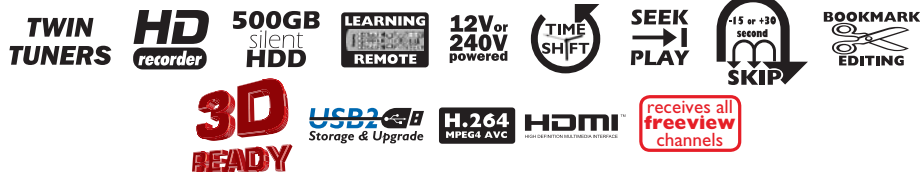
- Electronic Program Guide (EPG) with 8th day cross over
- Centre Cut option displays aspect of 16:9 on 4:3 screens
- Automatically updates broadcaster program changes
- Signal Strength and Quality bars colour coded
- Low Energy Consumption — MEPS compliant — <35 kWh per year (based on 10 hours daily use)
- Saves program parameters at Power Fail
- Closed Caption subtitles
- Parental Lock
- RS232 connector for software upgrades
- Removable mains power lead

HIGH DEFINITION TWIN TUNER 500GB DIGITAL TELEVISION RECORDER



HHR787

Fully Featured!



- Large capacity 500GB Hard Disk Drive inbuilt
- Silent and robust Hard Disk Drive
- USB2.0 external recording and playback
- Twin Tuner record 2 channels simultaneously
- Recording Modes; Manual, Timer and EPG
- Recording Timers; Once, Daily and Weekly
- Electronic Program Guide 7 days plus
- Record Selection from Electronic Program Guide
- Skip/Play/Forward in 30 second or back in -15 second steps
- Seek Play starts Playback at a designated time in a recording
- Bookmark Editing removes sections from a recording
- TimeShift enables you to Pause and Rewind live TV

- USB 2.0 Port for external file storage and firmware upgrades
- 3D TV viewing, recording & playback on 3D capable TV
- High Definition & Standard Definition broadcast ready
- Video Formats 1080i, 720p and 576i
- HDMI, YPbPr Component, S-Video and CVBS Composite outputs
- All outputs active simultaneously
- Coaxial Digital and Optical SPDIF Audio output
- RCA L & R Audio outputs x 2
- Learning Remote Control included
- Dual Power operates from 12 volt or 240 volt
- Receives all freeview channels.

SATELLITE & VAST TELEVISION RECEIVERS

FREE TO AIR SATELLITE RECEIVER



HSS852

**Built-In Modulator
for Older TVs**



**USB2.0
RECORDER**

**DVB-S
SATELLITE**

Low Power Consumption
Minimum Energy Performance Standards

- Satellite free to air TV and Radio receiver
- USB Recorder with Time Shift
- Plays recordings, jpeg and mp3 files
- 10 recording timers with 3 modes: Daily / Weekly / Once
- Inbuilt RF Modulator connects to all TV's including old TV's without video inputs
- Scart connector with component video
- RCA connector for composite video
- Digital coaxial SPDIF audio
- Parental Lock
- EPG: Electronic Program Guide
- Network channel scan with automatic and manual options as well as blind scan
- Conforms to MEPS: Low energy consumption

VAST HD SATELLITE RECEIVERS

DSD4121 & DSD4121PVRREADY

**USB Recorder
Now Available**



**DVB-S2 HD
SATELLITE**

High definition satellite receivers specifically designed for the Australian VAST Satellite TV service. Suitable for regional and remote areas and receives all freeview channels. Also ideal for caravans and motor homes.

Model DSD4121PVRREADY enables TV program recording by connecting your hard drive via the units USB2.0 port and includes a new design PVR remote control.

- STi7111 Secure Silicon core
- MPEG-2/4 HD compliant
- DVB-S2 Front end
- F-Type Satellite input
- IRDETO secure silicon conditional access
- 450 MHz core processor
- Over-the-Air secure software download
- HDMI output
- Component video output
- Coaxial S/PDIF digital audio output
- Dolby digital audio
- Subtitles
- Stereo audio outputs
- USB 2.0 interface (a function of the DSD4121PVRREADY)
- 8 Day electronic program guide
- Compliant with Australian VAST services

QAM DIGITAL CABLE RECEIVER WITH IRDETO SECURITY EMBEDDED



HSC870

irdeto



**DVB-C
CABLE**

HSC870 is a high performance QAM digital cable receiver that receives multiple Satellite QPSK and even OFDM multiplexes distributed over older 1 wire CATV MATV equipment (between VHF and UHF), where QAM transmodulators are installed.

- On Screen Display with multiple language options
- Mail and Message functions where broadcast
- Auto update of Service Information available
- Demodulates 256, 128, 64, 32 and 16 QAM
- Electronic Program Guide (EPG) function
- Saves parameters if mains disconnected
- Live software upgrade via RS232
- Easy access to multiple broadcasters
- 4:3 and 16:9 Aspect Ratios selectable
- Composite CVBS and S-Video Outputs
- Digital and dual Analogue Audio Outputs
- Last channel saved at power-off
- Stores up to 1000 channels

Receivers

PORTABLE HIGH DEFINITION LCD TELEVISION/MONITOR



HDT509



healing HDT509 is a new 9" (23cm) Portable HD Television and Monitor, with MPEG4 USB Recorder and Media Player. An internal rechargeable battery provides up to 2 hours of continuous independent viewing. It operates from its internal Lithium-ion battery, mains charger or 12V DC.

The whip antenna makes it a high quality digital TV solution that is wireless in every sense. Viewing is possible even in difficult reception areas with an optional pre-amplified antenna, as 5V DC is available to the Antenna jack.

Most Media files can be played directly from a USB storage device, and it will power an expansion portable HDD via the USB2 port.

You can share sound through the internal speakers, or enjoy it personally through the 3.5mm headphone jack. AV Input and Output are provided, along with a 3.5mm to RCA lead for connecting external devices.

A robust universal stand permits fitting on almost any stable surface, and has provision for permanent screwed fixing, say under a cupboard as a kitchen TV.

Less than 24mm deep, healing HDT509 weighs no more than 650grams. Receiving all 'freeview' channels, it could be the best investment in personal entertainment you will make.

